The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

February 26, 2020

Mr. David W. Gibson, Executive Officer
California Regional Water Quality Control Board
2375 Northside Drive, Suite 100
San Diego, CA 92108

Subject: 2019 Pretreatment Annual Report for the South Bay Water Reclamation Plant
Order No. R9-2013-0006 as Amended by Order No. R9-2014-0071

Dear Mr. Gibson:

The City of San Diego South Bay Water Reclamation Plant Pretreatment Program Annual Report is hereby submitted in accordance with the requirements of National Pollutant Discharge Elimination System (NPDES) Permit No.CA0109045, adopted February 13, 2013. The Pretreatment Program operated by the City of San Diego administers the program for the entire Metropolitan Sewerage System tributary area, under a single budget and implementation strategy. Therefore, this report incorporates sections of the Point Loma Pretreatment Program Annual Report relating to program budget, structure, and implementation strategy by reference.

The City is committed to protecting public health and the environment through a program of environmental management, which includes source control, wastewater treatment, water reclamation, and extensive monitoring. One key element of the program is an aggressive pretreatment and pollution prevention program to minimize toxic discharges to the sewerage system. This report includes a summary of Pretreatment Program activities and accomplishments throughout jurisdictions tributary to the South Bay Water Reclamation Plant.

Should you have any questions concerning the information provided herein, or wish to discuss the report in detail, please contact John Steger, Pretreatment Program Manager, at (858) 654-4103.

Sincerely,

Peter S. Vroom, Ph.D.
Deputy Director, Public Utilities Department

JAS

cc: Matthew Vespi, Executive Assistant Director of Public Utilities, City of San Diego
Joy Newman, Industrial Wastewater Control Program Manager, City of San Diego
R9Pretreatment@epa.gov

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POTW PRETREATMENT ANNUAL REPORT

COVER SHEET

NPDES Permit Holder or Sewer Authority Name: City of San Diego

Report Date: March 1, 2020

Period Covered by This Report: January 1, 2019 to December 31, 2019

Period Covered by Previous Report: January 1, 2018 to December 31, 2018

Name of Wastewater Treatment Plant(s) South Bay Water Reclamation Plant

NPDES Permit Number CA 0109045

Person to contact concerning information contained in this report:

Name: John Steger
Title: Pretreatment Program Manager
Mailing Address: 9192 Topaz Way, MS 901D
San Diego, CA 92123-1119
Telephone No.: (858) 654-4103

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

2-25-2020
Date

Peter Vroom, Ph.D.
Deputy Director Public Utilities

PRETREATMENT ANNUAL REPORT

PCS Data Entry Form

PPS1

POTW NAME: City of San Diego South Bay Water Reclamation Plant and Ocean Outfall
Flows from this plant can be diverted to the City of San Diego EW Blom Point Loma Plant, NPDES Permit No. CA0107409; therefore, this information is also included in the PCS for that POTW.

NPDES Permit #: CA0109045

Period Covered by This Report: 01/01/19 **(PSSD)** Start Date — 12/31/19 **(PSED)** End Date

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Number of Significant Industrial Users in SNC with Pretreatment Compliance Schedule:	0 **(SSNC)**
Number of Notices of Violation and Administrative Orders Issued Against Significant Industrial Users:	41 **(FENF)**
Number of Civil & Criminal Judicial Actions against Significant Industrial Users:	0 **(JUDI)**
Number of Significant Industrial Users with Significant Violations Published:	3 **(SVPU)**
Number of Industrial Users from Which Penalties Have Been Collected:	0 **(IUPN)**

SOUTH BAY WATER RECLAMATION PLANT & OCEAN OUTFALL PRETREATMENT ANNUAL REPORT

NPDES PERMIT No. CA 0109045
SDRWQCB ORDER No. R9-2013-0006 AS AMENDED BY ORDER No. R9-2014-0071

JANUARY 1 – DECEMBER 31, 2019

Environmental Monitoring and Technical Services
Public Utilities Department
2392 Kincaid Road Mail Station 45A
San Diego, CA 92101
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ACRONYMS

BMP	Best Management Practice
BMR	Baseline Monitoring Report
CIP	Capital Improvement Project
CWA	Clean Water Act
EDR	Electrodialysis Reversal
GAPS	Grove Avenue Pump Station
IBWC	International Boundary and Water Commission
IU	Industrial User
IWCP	Industrial Wastewater Control Program
IWTP	International Wastewater Treatment Plant
MDL	Method Detection Limit
MGD	Million Gallons Per Day
Non-SIU	Non-Significant Industrial User
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
ORPS	Otay River Pump Station
PLWTP	Point Loma Wastewater Treatment Plant
POTW	Publicly Owned Treatment Works
SBWRP	South Bay Water Reclamation Plant
SIU	Significant Industrial User
SMR	Self-Monitoring Report
SNC	Significant Non-Compliance
SBOO	South Bay Ocean Outfall
TDS	Total Dissolved Solids
TRC	Technical Review Criteria
USEPA	United States Environmental Protection Agency
UV	Ultraviolet

CHAPTER 1 – INTRODUCTION

1.1 Description of the South Bay Water Reclamation Plant and Its Service Area

The South Bay Water Reclamation Plant (SBWRP) is located on a 22-acre site near Dairy Mart Road and Monument Road in the eastern portion of the Tijuana River Valley. The site is just north of the international boundary between Mexico and the United States and less than a half mile west of the International Wastewater Treatment Plant (IWTP). The SBWRP treats raw wastewater collected from the southern portion of the City of San Diego, the City of Imperial Beach, the City of Chula Vista, and the unincorporated portions of south and east San Diego County, a total of approximately 44 square miles, and serves a population of about 110,000 people.

The plant is designed to treat up to 15 MGD of raw wastewater to secondary and/or tertiary reclaimed water standards. All SBWRP tertiary treated wastewater in excess of reclaimed water demands is discharged to the Pacific Ocean through the South Bay Ocean Outfall (SBOO). The SBOO was constructed for shared use by the IWTP, operated by the International Boundary and Water Commission (IBWC), and the City of San Diego's SBWRP. The SBOO extends westward approximately 23,600 feet from the mouth of the Tijuana River and terminates in a "wye" with two 1980-foot-long diffusers. The IWTP currently discharges a maximum of 25 MGD of secondary treated wastewater from the City of Tijuana. The total average design capacity of the outfall is 174 MGD with a peak hydraulic capacity of 233 MGD. The effluent from the SBWRP is combined with the effluent from the IWTP within the SBOO prior to discharge to the Pacific Ocean.

The SBWRP's primary and secondary processes consist of influent screening using mechanically cleaned bar screens, grit removal using aerated grit chambers, primary sedimentation clarifiers with chain and flight sludge collectors and tilting trough scum collectors, primary effluent flow equalization storage tanks, air activated sludge biological treatment with anoxic selector, and secondary clarifiers with chain and flight sludge collectors. The tertiary treatment process consists of filter feed pumping, coagulation with chemical addition, and direct filtration with conventional deep bed mono-media filters, backwash facilities, electrodialysis reversal (EDR) units, and disinfection using ultraviolet light. Sludge processing is handled at the Point Loma Wastewater Treatment Plant (PLWTP) and the Metropolitan Biosolids Center. Solids from the SBWRP are pumped to the PLWTP through the South Metro Interceptor.

The SBWRP began operations in 2002, accepting an average of 3.5 MGD influent through the Grove Avenue Pump Station (GAPS). In October 2003 the Otay River Pump Station (ORPS) came on-line. The ORPS is divided into two pumping streams, with one sending high total dissolved solids (TDS) flows from the Imperial Beach Sewer directly to the South Metro Interceptor influent to the PLWTP, and the other sending flows from the Otay Trunk Sewer and Salt Creek Trunk Sewer to the GAPS. Since start-up, the ORPS facility has been directing nearly 5 MGD to the GAPS, which combines with the more than 3 MGD GAPS flow for a total of nearly 8 MGD influent to the SBWRP. Since some wastewater from areas tributary to the GAPS and ORPS can be diverted to the PLWTP via the South Metro Interceptor, facilities tributary to the GAPS and ORPS are included in Annual Pretreatment Reports for both plants.

In 2017, the City installed two refurbished EDR units to provide for TDS and chloride removal. Several issues have surfaced affecting their performance and while it's likely the units could be serviceable; they may not be reliable long term. Violations for recycled water monitoring were listed for chloride and percent sodium in 2017 and continued through 2018. In response to the

staff enforcement letter received January 29, 2019, the City increased the monitoring frequency for chloride and four cations (sodium, potassium, calcium, and manganese) in the recycled water. The Business Case Evaluation draft for determining the best possible option to return the plant to compliance was completed in July 2018. Funds were obtained for a Capital Improvement Project (CIP) to replace the existing disinfection system at the SBWRP and Public Utilities has sought the services of a consultant, Carollo Engineers. The City staff are working closely with Carollo to understand the changes since the 2001 Recycled Water Engineer's Report. Carollo will prepare an Addendum to this Title 22 Engineer's Report to capture the changes made to the SBWRP Ultraviolet (UV) disinfection system and the two EDR units installed to reduce sodium and chloride. Additionally, Carollo will assist the City in coordinating with the Regional Board and the Division of Drinking Water regarding review and approval of the Engineering Report Addendum.

CHAPTER 2 – PROGRAM STRUCTURE

2.1 Pollution Prevention Plan Requirements

No significant industrial users (SIUs) have been required to prepare or implement a pollution prevention plan as the result of non-compliance.

2.2 Programs San Diego has Implemented to Reduce Pollutants from non-SIUs

The City controls pollutants discharged by non-Significan Industrial Users (non-SIUs) and by non-industrial sources through a combination of Class 2 and 3 permits, Best Management Practice (BMP) Certification programs, and Hazardous Waste Collection events and facilities throughout the Metropolitan Sewerage System service area in cooperation with contributing agencies. For details, see Chapters 2 and 3 of the Annual Report for the Point Loma Publicly Owned Treatment Works (POTW).

2.3 Pretreament Program Changes

Chages in administrative structure are found in Chapter 2 of the Annual Report for the Point Loma POTW.

2.4 Annual Pretreatment Program Budget

The pretreatment program budget is administered as a single budget for the three treatment plants in the Metropolitan Sewerage System service area. See Chapter 2, Section 2.3 of the Annual Report for the Point Loma POTW, for details.

CHAPTER 3 – DISCHARGE PERMITS

3.1 Active Permits

Table 3.1-1 Permit Inventory by Class and Flow										
Class	Class 1		Class 2			Class 3			Total	
Area	SIU	IW (GPD)	SIU	Non-SIU	IW (GPD)	SIU	Non-SIU	IW (GPD)	No. of Permits	IW GPD
12	3	224	0	5	14,554	8	2	364,631	18	379,409
13	0	0	1	8	20,950	0	1	6,685	10	27,635
36	1	33,375	0	0	0	0	0	0	1	33,375
Total	4	33,599	1	13	35,504	8	3	371,316	29	440,419

*The Pio Pico Energy Center facility is geographically located in Area 36; however, the facility does not discharge industrial wastewater to the SBWRP. Industrial flows and monitoring data are reported under its trucked waste permit (#25-0379). See Chapter 3 of the Annual Report for the Point Loma POTW, NPDES Permit No. CA 0107409 for details.

Table 3.1-2 Facilities with BMP Authorizations and No Permit Required							
Area	Class 2F	Class 4D	Class 4C	Class 4Z	Class 4	Class 5	Total
12	4	0	5	0	78	24	111
13	4	0	0	0	52	7	63
36	0	0	0	0	2	0	2
Total	8	0	5	0	132	31	176

3.2 Changes in SIU Inventory

Table 3.2-1 Changes in SIU Inventory					
FACILITIES that BECAME SIUs			Note: UT; = Extracted Groundwater Permit		
Facility	Name	Class	Permit	Date	Comments
No non-SIU facilities became SIUs during the reporting period					
SIU FACILITIES INACTIVATED					
Facility	Name	Class	Permit	Date	Comments
13-0555	UT; Frey Environmental Inc	2	01-A	02-Oct-2018	Sewer connection disconnected
SIU FACILITIES that REPORTED a NAME CHANGE					
Facility	Name	Class	Permit	Date	Previous Name
12-0154	Kraft Heinz Foods Company	3	05-A	01-Feb-2019	Heinz Frozen Foods
FORMER SIU FACILITIES THAT BECAME NON-SIUs					
Facility	Name	Class	Permit	Date	Comments
No SIU facilities became non-SIUs during the reporting period					

3.3 Baseline Monitoring Reports

Table 3.3-1 Baseline Monitoring Reports (BMR) Requested or Received			
Facility #	Facility Name	BMR Requested	BMR Received
No BMRs were requested or received during the reporting period			

Table 3.3-2 Facilities Operating under a Baseline Monitoring Report		
Facility #	**Facility Name**	**BMR Received**
12-0144	AP Precision Metals	17-Apr-2001
12-0154	Heinz Frozen Foods	30-Aug-2002
36-0001	Otay Mesa Energy Center LLC	20-Jun-2007
12-0202	Spec-Built Systems Inc	28-Jun-2005
12-0244	Harcon Precision Metals Inc	17-Jun-2010

SIU Facilities Federal Category, Process, and Pretreatment Technology by Connection

Report run on: Tuesday, January 21, 2020 11:43 am

Class 1

Facility Permit	Name	IW Discharged (gpd)	Conn	Principle Process	Federal/ Local	CFR Part	CFR Section	Order	Pre Treat Code
12-0144 05-A	AP Precision Metals	128	110	Metal Coating (Iron Phosphating)	Federal	433	.17	1	FILT-O
								2	SETTLE
								3	PH
12-0202 04-A	Spec-Built Systems Inc	26	110	Iron Phosphating	Federal	433	.17	1	SETTLE
								2	RECYL
								3	PH
12-0244 03-A	Harcon Precision Metals Inc	70	110	Conversion coating & assoc processes	Federal	433	.17	1	PH
								2	MIXER
								3	SETTLE
								4	HAUL
								5	EVAP
36-0001 03-A	Otay Mesa Energy Center LLC	33,375	110	WetSac blowdown + OWS	Federal	423	.17	1	SETTLE
								2	PH
			120	PCB zero discharge	Federal	423	.17	1	ZERO
			140	Turbine washing	Federal	423	.17	1	SETTLE

SIUs: 4

Class 2

Facility Permit	Name	IW Discharged (gpd)	Conn	Principle Process	Federal/ Local	CFR Part	CFR Section	Order	Pre Treat Code
13-0549 02-A	UT; Brenntag Pacific Inc	10,080	100	Groundwater Remediation	Local	101		1	O/W
								2	SETTLE
								3	CENT
								4	BIO+O2
								5	FILT-O
								6	ADS-C

SIUs: 1

Class 3

Facility Permit	Name	IW Discharged (gpd)	Conn	Principle Process	Federal/ Local	CFR Part	CFR Section	Order	Pre Treat Code
12-0038 06-A	RJ Donovan Correctional Facility	13,700	100	Prison Sewer Main	Local	133		1	GRIND
								2	SCREEN
								3	SOURCE
12-0065 05-A	Emerald Textiles LLC	79,194	110	Commercial Laundry	Local	133		1	LINT
								2	SETTLE
								3	HAUL
								4	RECYL
12-0154 05-A	Kraft Heinz Foods Company	102,142	110	Food Manufacturing	Local	137		1	EQUAL
								2	SCREEN
								3	DAF+C
								4	GREASE
								5	HAUL
12-0212 02-A	Tarantino Wholesale Food Distributors	7,112	100	Sewer Lateral	Local	137		1	EQUAL
								2	SCREEN
								3	HAUL
			210	Sausage manufacturing	Local			1	SETTLE
								2	HAUL
								3	ELBOW
12-0220 05-A	Ajinomoto Foods North America Inc	76,000	110	Food manufacturing	Local	137		1	EQUAL
								2	SCREEN
								3	DAF+C
								4	SD-FP
12-0275 03-A	Jensen Meat Company Inc	18,478	110	Meat processing, cleaning/sanitizing	Local	137		1	SCREEN
								2	ELBOW
								3	SETTLE
								4	HAUL
								5	DIVRTA
12-0283 03-A	Spectex Inc dba Specialty Textile Services	47,853	110	Commerical Laundry	Local	133		1	SETTLE
								2	LINT
								3	UF

SIU Facilities Federal Category, Process, and Pretreatment Technology by Connection

Report run on: Tuesday, January 21, 2020 11:43 am

Class 3

Facility Permit	Name	IW Discharged (gpd)	Conn	Principle Process	Federal/ Local	CFR Part	CFR Section	Order	Pre Treat Code
12-0285 03-A	US General Services Administration - SYLPOE	50	110	Waste activated sludge	Local			1	SCREEN
								2	EQUAL
								3	BIO-AS
			120	Untreated wastewater	Local			1	SCREEN
			130	Treated wastewater	Local			1	SCREEN
								2	EQUAL
								3	BIO-AS
								4	UF
								5	UV
								6	HAUL

SIUs: 8

SIU Facilities: Regulated Parameters by Connection

Report run on: Tuesday, January 21, 2020 11:46 am

Facility	Pmt	Name	Address	Conn	Total IW (gpd)	Parmcode	City freq	Self freq	Cat	Period	Lower Limit	Upper Limit	Units
12-0038	06-A	RJ Donovan Correctional Facility	480 Alta Rd, San Diego	100	13,700	OIL/GREASE	H	Q	L	DM		500	mg/L
						PH	H	Q	L	DM	5	12.5	pH
12-0065	05-A	Emerald Textiles LLC	1725 Dornoch Ct Suite 100, San Diego	110	79,194	OIL/GREASE	Q	Q	L	DM		500	mg/L
						PH	Q	Q	L	DM	5	12.5	pH
						PH HIGHEST	Q		L	DM		12.5	pH
						SULFIDE DISSOLVD	Q	Q	L	DM		1	mg/L
12-0144	05-A	AP Precision Metals	1215 30th St, San Diego	110	128	CADMIUM	Q	Q	F	DM		.11	mg/L
										MO		.07	mg/L
						CHROMIUM	Q	Q	F	DM		2.77	mg/L
										MO		1.71	mg/L
						COPPER	Q	Q	F	DM		3.38	mg/L
										MO		2.07	mg/L
						CYANIDE(T)	Q	Q	F	DM		1.2	mg/L
										MO		.65	mg/L
						LEAD	Q	Q	F	DM		.69	mg/L
										MO		.43	mg/L
						NICKEL	Q	Q	F	DM		3.98	mg/L
										MO		2.38	mg/L
						PH	Q	Q	L	DM	5	12.5	pH
						SILVER	Q	Q	F	DM		.43	mg/L
										MO		.24	mg/L
						TTO(413+433)-P	A	Q	F	DM		2130	ug/L
						ZINC	Q	Q	F	DM		2.61	mg/L
										MO		1.48	mg/L
12-0154	05-A	Kraft Heinz Foods Company	7878 Airway Rd, San Diego	110	102,142	OIL/G SCREEN	N		A	DM		500	mg/L
						OIL/GREASE	Q	M	L	DM		500	mg/L
						PH	Q	M	L	DM	5	12.5	pH
						PH HIGHEST	M		L	DM		12.5	pH
						SULFIDE DISSOLVD	Q	Q	L	DM		1	mg/L
						TEMP	Q	M	L	DM		65.5	DegC
12-0202	04-A	Spec-Built Systems Inc	2150 Michael Faraday Dr, San Diego	110	26	CADMIUM	S	Q	F	DM		.11	mg/L
										MO		.07	mg/L
						CHROMIUM	S	Q	F	DM		2.77	mg/L
										MO		1.71	mg/L
						COPPER	S	Q	F	DM		3.38	mg/L
										MO		2.07	mg/L
						CYANIDE(T)	S	Q	F	DM		1.2	mg/L
										MO		.65	mg/L
						LEAD	S	Q	F	DM		.69	mg/L
										MO		.43	mg/L
						NICKEL	S	Q	F	DM		3.98	mg/L
										MO		2.38	mg/L
						PH	S		L	DM	5	12.5	pH
						SILVER	S	Q	F	DM		.43	mg/L
								Q		MO		.24	mg/L
						TTO(413+433)-P				DM		2130	ug/L
								Q	F				
						ZINC		Q	F	DM		2.61	mg/L
										MO		1.48	mg/L
12-0212	02-A	Tarantino Wholesale Food Distributors	7651 Saint Andrews Av, San Diego	100	3,146	OIL/GREASE		H		DM		500	mg/L
						PH		H		DM	5	12.5	pH
						PH HIGHEST				DM		12.5	pH
						SULFIDE DISSOLVD		H		DM		1	mg/L
				210	3,966	OIL/GREASE		H		DM		500	mg/L
						PH				DM	5	12.5	pH
						PH HIGHEST				DM		12.5	pH
12-0220	05-A	Ajinomoto Foods North America Inc	8411 Siempre Viva Rd, San Diego	110	76,000	OIL/G SCREEN				DM		500	mg/L
						OIL/GREASE				DM		500	mg/L
						PH				DM	5	12.5	pH
						PH HIGHEST				DM		12.5	pH
						SULFIDE DISSOLVD				DM		1	mg/L
						TEMP				DM		65.5	DegC

SIU Facilities: Regulated Parameters by Connection

Report run on: Tuesday, January 21, 2020 11:46 am

Facility	Pmt	Name	Address	Conn	Total IW (gpd)	Parmcode	City freq	Self freq	Cat	Period	Lower Limit	Upper Limit	Units
12-0244	03-A	Harcon Precision Metals Inc	1790 Dornoch Ct, San Diego	110	70	CADMIUM	S	S	F	DM		.11	mg/L
										MO		.07	mg/L
						CHROMIUM	S	S	F	DM		2.77	mg/L
										MO		1.71	mg/L
						COPPER	S	S	F	DM		3.38	mg/L
										MO		2.07	mg/L
						CYANIDE(T)	S	S	F	DM		1.2	mg/L
										MO		.65	mg/L
						LEAD	S	S	F	DM		.69	mg/L
										MO		.43	mg/L
						NICKEL	S	S	F	DM		3.98	mg/L
										MO		2.38	mg/L
						OIL/GREASE	S	S	L	DM		500	mg/L
						PH	S	S	L	DM	5	12.5	pH
						SILVER	S	S	F	DM		.43	mg/L
										MO		.24	mg/L
						TTO(413+433)-P	A	S	F	DM		2130	ug/L
						ZINC	S	S	F	DM		2.61	mg/L
										MO		1.48	mg/L
12-0275	03-A	Jensen Meat Company Inc	2550 Britannia Bl Suite 101, San Diego	110	18,478	OIL/GREASE	Q	Q	L	DM		500	mg/L
						PH	Q	Q	L	DM	5	12.5	pH
						PH HIGHEST	Q		L	DM		12.5	pH
						SULFIDE DISSOLVD	Q		L	DM		1	mg/L
12-0283	03-A	Spectex Inc dba Specialty Textile Services	1333 30th St Suite A, San Diego	110	47,853	OIL/GREASE	Q	Q	L	DM		500	mg/L
						PH	Q	Q	L	DM	5	12.5	pH
						PH HIGHEST	S		L	DM		12.5	pH
						SULFIDE DISSOLVD	Q	Q	L	DM		1	mg/L
12-0285	03-A	US General Services Administration - SYLPOE	720 E San Ysidro Bl, San Diego	110	50	SULFIDE DISSOLVD	Q	Q	L	DM		1	mg/L
						TSS	Q	M	L	DM		10000	mg/L
13-0549	02-A	UT; Brenntag Pacific Inc	1888 Nirvana Av, Chula Vista	100	10,080	3CLETHE	Q	Q	L	DM		26	ug/L
						4CLETHE	Q	Q	L	DM		700	ug/L
						BNZ(W/OAGG)	Q	Q	L	DM		50	ug/L
						BTEX	Q	Q	L	DM		750	ug/L
						FLOW MAX		M	L	DM		10080	gpd
						FLOW RATE MAX		M	L	DM		20	gpm
36-0001	03-A	Otay Mesa Energy Center LLC	606 De La Fuente Ct, San Diego	110	33,357	CHROMIUM	Q	Q	F	DM		.2	mg/L
						OIL/GREASE	Q	Q	L	DM		500	mg/L
						PH	Q	Q	L	DM	5	12.5	pH
						PH HIGHEST	N		L	DM		12.5	pH
						TDS	S	Q	L	DM		2000	mg/L
						ZINC	Q	Q	F	DM		1	mg/L
				140	8	COPPER	S	S	F	DM		1	mg/L

Active NonSIU Permits

Report run on: Tuesday, January 21, 2020 11:47 am

Class **2**

Facility	*Permit*	*Name*	*Address*
12-0140	02-A	Kaiser Foundation Health Plan	4652 Palm Av, San Diego
12-0143	04-A	ADESA California LLC dba ADESA San Diego	2175 Cactus Rd, San Diego
12-0145	05-A	Larkspur Energy LLC	9355 Otay Mesa Rd, San Diego
12-0177	02-A	Truck Net LLC	8490 Avenida De La Fuente, San Diego
12-0254	01-A	Northwest Circuits Corp	8660 Avenida Costa Blanca, San Diego
13-0008	05-A	Sharp Chula Vista Medical Center	751 Medical Center Ct, Chula Vista
13-0048	04-A	Hyspan Precision Products	1685 Brandywine Av, Chula Vista
13-0278	04-A	Republic Services dba Allied Waste Services	881 Energy Wy, Chula Vista
13-0298	04-A	Chula Vista Energy Center LLC	3497 Main St, Chula Vista
13-0316	03-A	Fuller Ford Kia	560 Auto Park Dr, Chula Vista
13-0327	03-A	Dresser-Rand	1675 Brandywine Av Suite E&F, Chula Vista
13-0533	01-A	Fleetwash Inc	649 Anita St Suite 1A, Chula Vista
13-0534	01-A	Super Welding of Southern California	609 Anita St, Chula Vista
		13	

Class **3**

Facility	*Permit*	*Name*	*Address*
12-0024	03-A	US Border Patrol	3752 Beyer Bl, San Diego
12-0028	02-A	Palm Ave LLC	1835 Palm Av, San Diego
13-0439	01-A	Toyota Chula Vista	650 Main St, Chula Vista
		3	

Grand total: 16

Active Groundwater Permits

Report run on: Tuesday, January 21, 2020 11:48 am

Class **2**

Facility	*Permit*	*Name*	*Address*
13-0549	02-A	UT; Brenntag Pacific Inc	1888 Nirvana Av, Chula Vista
		1	

Grand total: 1

Zero Discharge from Categorical Operations

Report run on: Tuesday, January 21, 2020 11:49 am

Class **4C**

Facility	*Permit*	*Name*	*Address*
12-0067	04-A	Resideo Technologies Inc.	2055 Dublin Dr Suite 100, San Diego
12-0094	06-A	Parker Hannifin Corp CSS Division	7664 Panasonic Wy, San Diego
12-0137	04-A	General Dynamics Global Imaging Technologies	7603 Saint Andrews Av Suite H, San Diego
12-0150	03-A	Leidos Innovations Corp	1330 30th St Suite A, San Diego
12-0167	04-A	Crower Cams & Equipment Co Inc	6180 Business Center Ct, San Diego
		5	

Grand total: 5

Film Processors subject to BMPs

Report run on: Tuesday, January 21, 2020 11:48 am

Class **2F**

Facility	*Permit*	*Name*	*Address*
12-0119	01-A	Jeffrey W Brown DDS	1761 Palm Av, San Diego
12-0121	01-A	Jerome A Bannister DDS	4370 Palm Av Suite C, San Diego
12-0186	01-A	Rancho Vista Medical & Therapy Center Inc	342 W San Ysidro Bl Suite F, San Diego
12-0231	01-A	Juvenile Detention Facility	446 Alta Rd, San Diego
13-0117	02-A	Bay Port Press	645 Marsat St Suite D, Chula Vista
13-0235	01-A	Photo Max	1367 3rd Av, Chula Vista
13-0257	01-A	Robert N Woodall DDS Inc	330 Oxford St, Chula Vista
13-0387	01-A	Perpecta Dental Group	314 Palomar St, Chula Vista
		8	

Grand total: 8

Dry Cleaners subject to BMPs

Report run on: Tuesday, January 21, 2020 11:47 am

Grand total: 0

CHAPTER 4 – SIU ENFORCEMENT

4.1 Annual Compliance Summary

During the year covered in this report the program administered 14 SIU permits, covering 16 outfalls and monitored at 15 sample points. Three facilities were in significant non-compliance (SNC) during the year. These facilities are included in the calculation of the Metro System annual Significant Non-Compliance (SNC) rate reported in the Pretreatment Annual Report for the Point Loma POTW.

4.2 Characterization of the Compliance Status of Each SIU

The Annual SIU Compliance Status Report, which follows this page, lists the industry name, address, permit number, permit class; industrial flow by connection; violation dates and descriptions, if applicable; discharge standard and period, and actual value resulting in the violation; whether the violation exceeded the Technical Review Criteria (TRC); and whether the industry has been in SNC at any time during the year.

4.3 SIU Enforcement Actions Initiated, Continued, or Finalized

Jensen Meat Company Inc; IU # 12-0275
This meat processing facility was initially permitted in February of 2014 and now discharges about 27,000 gpd, after pretreatment, from cleaning and sanitizing operations. The IU met the criteria for SNC status for the six-month period ending in the 3rd quarter of 2019, when 5 of the 6 samples collected exceeded the daily maximum for dissolved sulfide by more than the TRC. The IU responded that its contractor concluded "we have too much decomposing or too much organic matter in our grease trap" and that they are taking several steps to improve their cleaning procedures including: jet-cleaning the drain pipes 3 times a year instead of 2, cleaning the grease trap once a month and deep cleaning it twice a year, and implementing a new cleaning procedure to reduce the solids into the drains. Notice of Violations (NOV) were issued for the violations and additional program monitoring will be scheduled for the first half of 2020 to determine whether these actions are sufficient to achieve compliance.

Spec-Built Systems; IU # 12-0202
This metal finisher performs iron phosphating on maritime cabinets and shelves. Since 2008 the IU has reused its rinse water and discharged an average of 4 batches of wastewater per year, equivalent to about 30 gpd. The IU had not violated a pollutant limit since 2008. Then the sample taken by the IU during its batch discharge on June 4, 2018 exceeded the daily maximum and monthly average limits for zinc and resulted in SNC status for the six-month period ending with the 2nd quarter of 2018. In addition, the IU failed to notify IWCP of daily maximum violation prior to submitting the Self-Monitoring Reports (SMR). Subsequently the next batch discharge on September 11 resulted in a monthly average violation for zinc, and the final batch discharge of 2018 on December 11 resulted in a daily maximum violation for zinc and monthly average violations for copper and zinc. Due to these violations the IU stayed in SNC status for the six-month periods ending with the 3rd and 4th quarters of 2018.

Then the only batch discharge in the first half of 2019 on February 4, also resulted in a daily maximum violation for zinc and monthly average violations for copper and zinc. Thus, the IU's SNC status extended into the six-month period ending with the 1st quarter of 2019. NOVs were issued and the IU responded that it has concluded the elevated metal levels are due to reductions in its rinse water use to less than 10 gpd that have also resulted in quality control issues for the powder coating process. To correct, the IU plans to return its water use to the previous volumes. The IU refrained from making any further discharges for the rest of 2019, therefore monitoring in 2020 will establish whether these actions are sufficient to return the IU to compliance.

Tarantino Wholesale Food Distributors; IU # 12-0212
This small food manufacturing facility was first permitted in April of 2018 for discharges averaging less than 10,000 gpd. First a single sample in November 2018 exceeded the local daily maximum limit (1 mg/L) for dissolved sulfides and this resulted in SNC status for the six-month period ending with the 1st quarter of 2019. Then the IU failed to submit the SMR due January 15, 2019 for both of its monitoring points, and thus was also SNC for late reporting in the 1st quarter. NOVs were issued and to address the elevated dissolved sulfides the IU stated it was having the tank pumped and cleaned. All 8 results for the rest of 2019 demonstrated compliance and the IU submitted its SMRs due in April and July, on time and then within 10 days of the due date, respectively, thus no further enforcement actions are planned.

4.4 Public Information and Involvement

Each year, a combined list of all facilities in the Metropolitan Sewerage System service area that were in SNC at any time during the year is published in the Union Tribune; this list is included in Chapter 4 of the Pretreatment Annual Report for the Point Loma POTW.

The following SIUs discharging tributary to the SBWRP were in SNC:

Industrial User	Address	Pollutant/Other
Jensen Meat Company Inc	2550 Britannia Bl, San Diego	dissolved sulfides
Spec-Built Systems	2150 Michael Faraday Dr, San Diego	copper, zinc
Tarantino Wholesale Food Distributors	7651 Saint Andrews Av, San Diego	dissolved sulfides[1], SM Report Late > 30 days

[1] SNC due to a single sample in violation for the pollutant listed

Annual SIU Compliance Status Report

01-Jan-2019 through 31-Dec-2019

SIU Name	IU#	Class	IW Disch	SNC?	[If Yes, Why]	Conn	Violation Date	Description/Parameter	Value	Limit	Period	Cat	TRC
AP Precision Metals 1215 30th St, San Diego	12-0144	1	128	No		110	22-Oct-19	SMR Late - written notice					
Ajinomoto Foods North America Inc 8411 Siempre Viva Rd, San Diego	12-0220	3	76000	No		110	26-Feb-19	Delinquent Requirement					
Emerald Textiles LLC 1725 Dornoch Ct Suite 100, San Diego	12-0065	3	79194	No		110	29-Apr-19	SMR Incomplete					
Harcon Precision Metals Inc 1790 Dornoch Ct, San Diego	12-0244	1	70	No		110	08-Feb-19	SMR Late - written notice					
						110	19-Feb-19	SMR Incomplete					
						110	16-Jul-19	SMR Incomplete					
						120	08-Feb-19	SMR Late - written notice					
						120	19-Feb-19	SMR Incomplete					
Jensen Meat Company Inc 2550 Britannia Bl Suite 101, San Diego	12-0275	3	18478	**Yes**	SNC2 - TRC (DM): SulfD 2/2,SulfD 4/4	110	29-Apr-19	SMR Incomplete					
						110	24-Jun-19	Sulfides, Dissolved-Instantaneous	4.5	1	DM	L	**Y**
						110	24-Jun-19	Sulfides, Dissolved-Instantaneous	8.5	1	DM	L	**Y**
						110	25-Jun-19	Sulfides, Dissolved-Instantaneous	7	1	DM	L	**Y**
						110	18-Sep-19	Sulfides, Dissolved-Instantaneous	2.3	1	DM	L	**Y**
						110	19-Sep-19	Sulfides, Dissolved-Instantaneous	2.5	1	DM	L	**Y**
Kraft Heinz Foods Company 7878 Airway Rd, San Diego	12-0154	3	102142	No		110	29-Apr-19	SMR Incomplete					
						110	22-May-19	SMR Late - written notice					
						110	03-Jun-19	SMR Incomplete					
						110	19-Sep-19	Oil and grease, Total-Instantaneous	1000	500	DM	L	**Y**
Otay Mesa Energy Center LLC 606 De La Fuente Ct, San Diego	36-0001	1	33375	No		110	28-Oct-19	SMR Incomplete					
RJ Donovan Correctional Facility 480 Alta Rd, San Diego	12-0038	3	13700	No		100	08-Feb-19	SMR Late - written notice					
						100	11-Mar-19	SMR Incomplete					
							31-Dec-19	Delinquent Requirement					
Spec-Built Systems Inc 2150 Michael Faraday Dr, San Diego	12-0202	1	26	**Yes**	SNC2 - TRC (MO): Cu 1/1,Cu 2/2,Zn 1/1,Zn 2/2 (DM): Zn 1/1,Zn 1/2	110	01-Feb-19	Copper, Total	2.7	2.07	MO	F	**Y**
						110	01-Feb-19	Zinc, Total	3.8	1.48	MO	F	**Y**
						110	04-Feb-19	Zinc, Total	3.8	2.61	DM	F	**Y**
						110	20-May-19	SMR Incomplete - failed notify in 24 hrs					
Spectex Inc dba Specialty Textile Services 1333 30th St Suite A, San Diego	12-0283	3	47853	No		110	17-Jan-19	Oil and grease, Total-Instantaneous	625	500	DM	L	N
						110	28-Oct-19	SMR Incomplete					
						110	21-Nov-19	SMR Late - written notice					
						110	11-Feb-20	SMR Incomplete					
Tarantino Wholesale Food Distributors 7651 Saint Andrews Av, San Diego	12-0212	3	7112	**Yes**	SNC2 - TRC (DM): SulfD 1/3; SNC6 - Report Late > 30 days	100	08-Feb-19	SMR Late - written notice					
						100	23-Jul-19	SMR Late - written notice					
						210	08-Feb-19	SMR Late - written notice					
						210	23-Jul-19	SMR Late - written notice					
US General Services Administration - SYLPOE 720 E San Ysidro Bl, San Diego	12-0285	3	50	No		NA							
UT; Brenntag Pacific Inc 1888 Nirvana Av, Chula Vista	13-0549	2	10080	No		NA							
UT; Frey Environmental Inc 825 Energy Wy, Chula Vista	13-0555	2	21600	No		NA							

NOVs Issued in 2019 for SIUs

Report run on: Thursday, February 20, 2020 5:14 pm

Name	Facility	Conn	NOV	Identified	Action	Viol Date	Fee	Level
AP Precision Metals	12-0144	110	94539	22-Oct-2019	22-Oct-2019		100	Initial notice
Ajinomoto Foods North America Inc	12-0220	110	92342	26-Feb-2019	26-Feb-2019		100	Initial notice
Emerald Textiles LLC	12-0065	110	92708	29-Apr-2019	29-Apr-2019	16-Jan-2019	50	Notice only
Harcon Precision Metals Inc	12-0244	110	91851	08-Feb-2019	14-Feb-2019		50	Notice only
			91888	19-Feb-2019	19-Feb-2019	02-Nov-2018	50	Notice only
			93451	16-Jul-2019	16-Jul-2019	30-Jun-2019	50	Notice only
Harcon Precision Metals Inc	12-0244	120	91852	08-Feb-2019	14-Feb-2019		50	Notice only
			91889	19-Feb-2019	19-Feb-2019	31-Dec-2018	50	Notice only
Jensen Meat Company Inc	12-0275	110	92710	29-Apr-2019	29-Apr-2019	31-Mar-2019	50	Notice only
			93702	12-Aug-2019	12-Aug-2019	25-Jun-2019	100	Initial notice
			94689	18-Nov-2019	18-Nov-2019	19-Sep-2019	100	Initial notice
Kraft Heinz Foods Company	12-0154	110	92712	29-Apr-2019	29-Apr-2019	14-Mar-2019	50	Notice only
			93219	22-May-2019	22-May-2019		50	Notice only
			93268	03-Jun-2019	03-Jun-2019	10-Apr-2019	50	Notice only
			94711	18-Nov-2019	18-Nov-2019	19-Sep-2019	100	Initial notice
Otay Mesa Energy Center LLC	36-0001	110	94550	22-Oct-2019	23-Oct-2019		0	Notice only
			94615	28-Oct-2019	28-Oct-2019	30-Sep-2019	50	Notice only
Otay Mesa Energy Center LLC	36-0001	120	94551	22-Oct-2019	23-Oct-2019		0	Notice only
RJ Donovan Correctional Facility	12-0038	100	91848	08-Feb-2019	08-Feb-2019		100	Initial notice
			91848	08-Feb-2019	02-May-2019		75	Second notice
			92408	11-Mar-2019	11-Mar-2019	31-Dec-2018	50	Notice only
Spec-Built Systems Inc	12-0202	110	91242	19-Nov-2018	09-Jan-2019	11-Sep-2018	75	Second notice
			91913	19-Feb-2019	19-Feb-2019	11-Dec-2018	100	Initial notice
			91913	19-Feb-2019	18-Mar-2019	11-Dec-2018	75	Second notice
			92158	20-Feb-2019	20-Feb-2019	11-Dec-2018	100	Initial notice
			92158	20-Feb-2019	19-Mar-2019	11-Dec-2018	75	Second notice
			92928	20-May-2019	20-May-2019	04-Feb-2019	100	Initial notice
			93014	20-May-2019	20-May-2019	04-Feb-2019	100	Initial notice
Spectex Inc dba Specialty Textile Services	12-0283	110	92639	15-Apr-2019	15-Apr-2019	18-Jan-2019	100	Initial notice
			94570	28-Oct-2019	28-Oct-2019	10-Jul-2019	50	Notice only
			95094	21-Nov-2019	21-Nov-2019		50	Notice only
Tarantino Wholesale Food Distributors	12-0212	100	91849	08-Feb-2019	08-Feb-2019		100	Initial notice
			91849	08-Feb-2019	18-Mar-2019		75	Second notice
			91849	08-Feb-2019	30-Apr-2019		100	Final notice
			91918	19-Feb-2019	19-Feb-2019	08-Nov-2018	100	Initial notice
			93557	23-Jul-2019	25-Jul-2019		50	Notice only
Tarantino Wholesale Food Distributors	12-0212	210	91850	08-Feb-2019	08-Feb-2019		100	Initial notice
			91850	08-Feb-2019	19-Mar-2019		75	Second notice
			91850	08-Feb-2019	30-Apr-2019		100	Final notice
			92328	25-Feb-2019	26-Feb-2019	08-Nov-2018	100	Initial notice
			93558	23-Jul-2019	25-Jul-2019		50	Notice only
	Total fees:						$2,950	
NOV count:			41					

Report run on: Tuesday, January 21, 2020 11:52 am

Facility Pmt	Name	Conn	Principle Process	Pmt Include	Parmcode	City Samples	Self Samples
12-0038 06-A	RJ Donovan Correctional Facility	100	Prison Sewer Main	L	SOLVENT CERT		1
					COD	1	2
					PH	1	2
					PHARMA HC CERT		1
					BIOHAZARD CERT		1
					OIL/GREASE	1	2
					TSS	1	2
12-0065 05-A	Emerald Textiles LLC	110	Commercial Laundry	L	PH HIGHEST	1	
					PH LOWEST	1	
					SULFIDE DISSOLVD	2	2
					TDS	1	2
					OIL/GREASE		2
					CHLORIDE	1	2
					FLOW		6
					TSS	1	2
					COD	1	2
					PH	1	2
12-0144 05-A	AP Precision Metals	110	Metal Coating (Iron Phosphating)	F	FLOW MAX		1
					NICKEL	2	1
					TTO CERT		1
					CADMIUM	2	1
					PH	2	1
					SILVER	2	1
					TTO(413+433)-P	1	
					CHROMIUM	2	1
					FLOW		1
					LEAD	2	1
					CYANIDE(T)	2	1
					COPPER	2	1
					ZINC	2	1
12-0154 05-A	Kraft Heinz Foods Company	110	Food Manufacturing	L	FLOWMETER READ 1		6
					FLOWMETER READ 2	1	6
					TEMP	3	6
					FLOW		6
					FLOW TOTIMPORTED		6
					PH	3	6
					PH HIGHEST	3	
					TSS	3	6
					OIL/G SCREEN		
					OIL/GREASE	3	6
					COD	3	6
					SULFIDE DISSOLVD	3	2
					PH LOWEST	3	
12-0202 04-A	Spec-Built Systems Inc	110	Iron Phosphating	F	COPPER		
					TSS		
					TTO(413+433)-P		
					CHROMIUM		
					FLOW		
					LEAD		
					PH		
					TTO CERT		1
					NICKEL		
					CADMIUM		
					CYANIDE(T)		
					SILVER		
					ZINC		
					COD		
12-0212 02-A	Tarantino Wholesale Food Distributors	100	Sewer Lateral	L	PH LOWEST	1	
					OIL/GREASE	3	3
					COD	1	3
					FLOW		3
					PH HIGHEST	1	
					SULFIDE DISSOLVD	1	3
					TSS	1	3
					CHLORIDE	1	3
					PH	1	3
					TDS	1	3
		210	Sausage manufacturing	L	COD	1	3
					FLOW		3
					PH	1	
					TSS	1	3
					OIL/GREASE	3	3
					CLARIFIER RPT		3
					TDS		3

Sampling in 2019 at SIUs

Report run on: Tuesday, January 21, 2020 11:52 am

Facility Pmt	Name	Conn	Principle Process	Pmt Include	Parmcode	City Samples	Self Samples
12-0220 05-A	Ajinomoto Foods North America Inc	110	Food manufacturing	L	FLOW		5
					OIL/GREASE	2	5
					TDS	3	5
					FLOWMETER READ 2		5
					PH HIGHEST	3	
					TFDS	3	5
					TSS	3	5
					TEMP	2	5
					CHLORIDE	3	5
					PH	2	5
					FLOWMETER READ 1		5
					COD	3	5
					PH LOWEST	3	
					SULFIDE DISSOLVD	2	1
12-0244 03-A	Harcon Precision Metals Inc	110	Conversion coating & assoc processes	F	TTO(413+433)-P		
					LEAD	2	
					SILVER	2	
					CADMIUM	2	
					COD	2	
					CYANIDE(T)	2	
					NICKEL	2	
					TSS	2	
					FLOW		
					FLOW MAX		
					PH	2	
					CHROMIUM	2	
					TTO CERT		
					COPPER	2	
					OIL/GREASE	1	
					ZINC	2	
12-0275 03-A	Jensen Meat Company Inc	110	Meat processing, cleaning/sanitizing	L	CHLORIDE	1	2
					OIL/GREASE	3	2
					PH LOWEST	1	
					TFDS	1	2
					PH HIGHEST	1	
					CLARIFIER RPT		2
					FLOW		2
					PH	3	2
					TSS	1	2
					RAIN DIVERT CERT		1
					COD	1	2
					SULFIDE DISSOLVD	3	
					TDS	1	2
12-0283 03-A	Spectex Inc dba Specialty Textile Services	110	Commerical Laundry	L	SULFIDE DISSOLVD	2	
					TSS	1	1
					OIL/GREASE		1
					PH LOWEST		
					PH	1	1
					COD	1	1
					FLOW		4
					PH HIGHEST		
12-0285 03-A	US General Services Administration - SYLPOE	110	Waste activated sludge	L	FLOW		1
					FLOW MAX		1
					FLOW TOTIMPORTED		6
					TDS		
					TSS		1
					COD		1
					SULFIDE DISSOLVD		1
		120	Untreated wastewater		FLOW TOTIMPORTED		6
		130	Treated wastewater		FLOW TOTIMPORTED		6

Sampling in 2019 at SIUs

Report run on: Tuesday, January 21, 2020 11:52 am

Facility Pmt	Name	Conn	Principle Process	Pmt Include	Parmcode	City Samples	Self Samples
13-0549 02-A	UT; Brenntag Pacific Inc	100	Groundwater Remediation	L	FLASH		4
				L	BNZ(W/OAGG)		4
					COD		6
					FLOW RATE MIN		6
					FLOW TOTIMPORTED		6
					FLOWMETER READ 2		6
					4CLETHE		4
					AUTOSHUTDOWN RPT		6
					TSS		6
					FLOW RATE MAX		6
					BTEX		4
					FLOWMETER READ 1		6
					3CLETHE		4
					FLOW MAX		6
36-0001 03-A	Otay Mesa Energy Center LLC	110	WetSac blowdown + OWS	F	ZINC	1	1
					OIL/GREASE		1
					PH HIGHEST		
					TDS	1	1
					FLOW		1
					FLOW MAX		1
					PH	1	1
					PH LOWEST		
					CHROMIUM	1	1
		120	PCB zero discharge	F	ZERODISCHRG CERT		1
		140	Turbine washing	F	COPPER		
					FLOW MAX		
					FLOW		
SIUs:	13						

CHAPTER 5 – PRETREATMENT PROGRAM EFFECTIVENESS

5.1 Heavy Metal Loadings and Monitoring Data

Summary of analytical results from representative flow-proportioned, 24-hour composite sampling of the SBWRP influent and effluent for those pollutants that the United State Environmental Protection Agency (USEPA) has identified under Section 307(a) of the Clean Water Act (CWA), and which are known or suspected to be discharged by industrial users. The summary must include a full priority pollutant scan. Tables 5.1-1 and 5.1-2 summarize influent and effluent heavy metal loadings by month.

5.2. Upset, Interference and Pass-Through

No incidents of interference with the collection system, pump stations, or treatment plant operations were reported.

5.3. Biosolids Disposal Method

Biosolids from the SBWRP are conveyed to Point Loma, and from there to the Metro Biosolids Center for processing and disposal in combination with biosolids from throughout the Metropolitan Sewerage System service area. See details of biosolids disposal locations and beneficial uses on Chapter 5 Section 5.5 of this year's Annual Report for the Point Loma POTW, NPDES Permit No. CA 0107409.

5.4. Other Concerns

There are no other concerns pertaining to the administration of the pretreatment program or control of industrial contributions to the headworks loadings at the SBWRP currently.

TABLE 5.1-1
SOUTH BAY WATER RECLAMATION PLANT INFLUENT HEAVY METALS
Average Concentration and Loadings

ND or <MDL = 0

Month	Flow MGD	Cd	Cr	Cu	Pb	Ni	Ag	Zn
Jan- Nov MDL (ug/L)*		0.04	0.2	0.42	0.08	0.09	0.01	0.86
Dec MDL (ug/L)*		0.452	7.17	9.37	5.93	3.35	1.57	10.40
Jan	6.46	0.169	1.78	66.2	1.07	3.24	0.156	140
Feb	6.26	0.116	7.60	65.2	1.39	6.40	0.146	128
Mar	6.06	0.111	2.38	77.8	1.51	3.64	0.188	158
Apr	6.23	0.166	4.27	127	1.43	5.47	0.268	163
May	6.31	0.139	2.62	85.6	1.59	4.16	0.206	177
Jun	6.64	0.141	2.46	99.4	1.44	4.93	0	174
Jul	6.88	0.133	3.42	81.8	1.20	4.40	0	168
Aug	6.74	0.102	8.13	230	1.40	9.17	0	213
Sep	6.46	0.213	2.56	82.3	1.22	3.81	0.223	180
Oct	6.35	0.2	2.90	104	1.35	4.40	0.189	204
Nov	6.35	0.105	14.00	66.8	1.40	10.60	0.124	153
Dec	6.54	0	0	77.2	0	4.63	0	154
Average Flow MGD	6.44							
Average ug/L		0.13	4.34	96.94	1.25	5.40	0.13	167.67
LBS/day		0.01	0.23	5.21	0.07	0.29	0.01	9.01
Total Lbs HM	14.82							
Total lb (-) Ag	14.81							

*NOTE: For Jan to Nov 2019, the metal analysis were performed using EPA 200.8. method. In Dember, they were performed using EPA 200.7 method.

TABLE 5.1-2
SOUTH BAY WATER RECLAMATION PLANT EFFLUENT HEAVY METALS
Average Concentration and Loadings

ND or <MDL = 0

Month	Flow MGD	Cd	Cr	Cu	Pb	Ni	Ag	Zn
Jan- Nov MDL (ug/L)*		0.04	0.2	0.42	0.08	0.09	0.01	0.86
Dec MDL (ug/L)*	0	0.452	7.17	9.37	5.93	3.35	1.57	10.40
Jan	5.93	0	0.364	5.25	0.214	1.88	0	47.4
Feb	5.82	0	0.338	5.27	0.250	1.70	0	48.8
Mar	4.75	0	0.412	8.32	0.259	2.08	0	50.1
Apr	2.11	0	0.390	11.3	0.191	1.94	0	44.3
May	3.80	0	0.490	7.46	0.234	2.32	0	54.6
Jun	2.60	0	0.49	8.76	0.296	2.31	0	63.9
Jul	1.85	0	0.393	7.18	0.166	1.64	0	51.4
Aug	1.81	0	0.529	9.39	0.211	2.84	0	68.1
Sep	1.88	0	0.416	14	0.175	2.29	0	56.1
Oct	1.98	0	0	6.23	0.194	1.96	0	63.5
Nov	3.93	0	0.459	6.66	0.196	1.77	0	60.0
Dec	5.97	0	0	0	0	0	0	57.7
Average Flow MGD	3.49							
Average ug/L		0.00	0.39	7.49	0.20	1.89	0.00	55.49
LBS/day		0.00	0.01	0.22	0.01	0.06	0.00	1.62
Total Lbs HM	1.9							
Total lb (-) Ag	1.9							

*NOTE: For Jan to Nov 2019, the metal analysis were performed using EPA 200.8. method. In Dember, they were performed using EPA 200.7 method.

SOUTH BAY WATER RECLAMATION PLANT
SEWAGE INFLUENT and EFFLUENT

Annual 2019

From 01-JAN-2019 To 31-DEC-2019

Biochemical Oxygen Demand Concentration
(24-hour composite)

Month/ Units:	Influent Flow (MGD)	Daily Influent Value (mg/L)	Daily Influent Value (lbs/Day)	Effluent Flow (MGD)	Daily Effluent Value (mg/L)	Daily Effluent Value (lbs/Day)	Percent Removal BOD (%)
JANUARY -2019	6.46	320	17240	5.93	5	247	98.4
FEBRUARY -2019	6.26	283	14775	5.82	6	291	97.9
MARCH -2019	6.06	345	17436	4.75	5	198	98.6
APRIL -2019	6.23	311	16159	2.11	2	35	99.4
MAY -2019	6.31	311	16366	3.80	4	127	98.7
JUNE -2019	6.64	324	17942	2.60	3	65	99.1
JULY -2019	6.88	379	21747	1.85	4	62	98.9
AUGUST -2019	6.74	382	21473	1.81	4	60	99.0
SEPTEMBER-2019	6.46	380	20473	1.88	3	47	99.2
OCTOBER -2019	6.35	343	18165	1.98	4	66	98.8
NOVEMBER -2019	6.35	385	20389	3.93	4	131	99.0
DECEMBER -2019	6.54	349	19036	5.97	4	199	98.9
Average	6.44	343	18433	3.54	4	127	98.8

Annual Mass Emissions are calculated from monthly averages of flow for BOD, whereas
Monthly Report average mass emissions are calculated from average daily mass emissions.

ND=not detected

SOUTH BAY WATER RECLAMATION PLANT
SEWAGE INFLUENT and EFFLUENT

Annual 2019

Total Suspended Solids Concentration
(24-hour composite)

Source:	Influent Flow	Influent Daily TSS	Influent Daily VSS	Percent VSS	Influent Daily Mass Emission
Analyte:					
Month/ Units:	(MGD)	(mg/L)	(mg/L)	(%)	(lbs/Day)
JANUARY -2019	6.46	342	318	93.0	18426
FEBRUARY -2019	6.26	271	244	90.0	14148
MARCH -2019	6.06	308	276	89.6	15566
APRIL -2019	6.23	305	281	92.1	15847
MAY -2019	6.31	294	268	91.2	15472
JUNE -2019	6.64	309	287	92.9	17112
JULY -2019	6.88	335	305	91.0	19222
AUGUST -2019	6.74	341	310	90.9	19168
SEPTEMBER-2019	6.46	316	285	90.2	17025
OCTOBER -2019	6.35	320	290	90.6	16947
NOVEMBER -2019	6.35	356	318	89.3	18853
DECEMBER -2019	6.54	318	291	91.5	17345
Average	6.44	318	289	91.0	17094

Total Suspended Solids Concentration
(24-hour composite)

Source:	Effluent Flow	Effluent Daily TSS	Effluent Daily VSS	Percent VSS	Effluent Daily Mass Emission	Percent Removal TSS	Percent Removal VSS
Analyte:							
Month/ Units:	(MGD)	(mg/L)	(mg/L)	(%)	(lbs/Day)	(%)	(%)
JANUARY -2019	5.93	4.4	3.9	88.6	218	98.7	98.8
FEBRUARY -2019	5.82	6.0	5.3	88.3	291	97.8	97.8
MARCH -2019	4.75	4.8	4.2	87.5	190	98.4	98.5
APRIL -2019	2.11	<5.0	<5.0	*	0	100.0	100.0
MAY -2019	3.80	4.9	4.4	89.8	155	98.3	98.4
JUNE -2019	2.60	2.8	2.6	92.9	61	99.1	99.1
JULY -2019	1.85	3.9	3.1	79.5	60	98.8	99.0
AUGUST -2019	1.81	2.7	<2.5	0.0	41	99.2	100.0
SEPTEMBER-2019	1.88	<2.5	<2.5	*	0	100.0	100.0
OCTOBER -2019	1.98	<2.5	<2.5	*	0	100.0	100.0
NOVEMBER -2019	3.93	3.2	2.5	78.1	105	99.1	99.2
DECEMBER -2019	5.97	4.9	4.2	85.7	244	98.5	98.6
Average	3.54	3.1	2.5		114	99.0	99.1

*= undetermined, the percent VSS was not calculated because TSS and VSS results were below the MDL.

Annual Mass Emissions are calculated from monthly averages of flow and TSS, whereas
Monthly Report average mass emissions are calculated from average daily mass emissions.

VSS= Volatile Suspended Solids
TSS= Total Suspended Solids

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT

Annual 2019

Influent to Plant
(SB_INF_02)

Analyte:	Flow	pH	Total Dissolved Solids	Biochemical Oxygen Demand	Total Suspended Solids	Volatile Suspended Solids	Turbidity
Units:	(mgd)	(pH)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)
JANUARY -2019	6.46	NR	1070	320	342	318	NR
FEBRUARY -2019	6.26	7.28	1060	283	271	244	186.00
MARCH -2019	6.06	NR	1060	345	308	276	NR
APRIL -2019	6.23	NR	1020	311	305	281	NR
MAY -2019	6.31	7.48	976	311	294	268	155.00
JUNE -2019	6.64	NR	975	324	309	287	NR
JULY -2019	6.88	NR	963	379	335	305	NR
AUGUST -2019	6.74	7.10	934	382	341	310	141.00
SEPTEMBER-2019	6.46	NR	922	380	316	285	NR
OCTOBER -2019	6.35	7.30	935	343	320	290	NR
NOVEMBER -2019	6.35	NR	947	385	356	318	NR
DECEMBER -2019	6.54	NR	920	349	318	291	NR
Average	6.44	7.29	982	343	318	289	161

ND=not detected; NR=not required

SOUTH BAY WATER RECLAMATION PLANT

Annual 2019

Effluent to Ocean Outfall
(SB_OUTFALL_01)

Analyte:	Flow	pH	Settleable Solids	Biochemical Oxygen Demand	Total Suspended Solids	Volatile Suspended Solids	Total Dissolved Solids
Units:	(mgd)	(pH)	(ml/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
JANUARY -2019	5.93	7.34	ND	5	4.4	3.9	1030
FEBRUARY -2019	5.82	7.35	ND	6	6.0	5.3	1010
MARCH -2019	4.75	7.36	ND	5	4.8	4.2	1010
APRIL -2019	2.11	7.38	ND	2	<5.0	<5.0	956
MAY -2019	3.80	7.34	ND	4	4.9	4.4	922
JUNE -2019	2.60	7.32	ND	3	2.8	2.6	901
JULY -2019	1.85	7.31	ND	4	3.9	3.1	916
AUGUST -2019	1.81	7.30	ND	4	2.7	<2.5	873
SEPTEMBER-2019	1.88	7.32	ND	3	<2.5	<2.5	879
OCTOBER -2019	1.98	7.34	ND	4	<2.5	<2.5	882
NOVEMBER -2019	3.93	7.31	ND	4	3.2	2.5	885
DECEMBER -2019	5.97	7.33	ND	4	4.9	4.2	870
Average	3.54	7.33	0.0	4	3.1	2.5	928

Analyte:	Oil & Grease	Outfall Temperature	Residual Chlorine	Turbidity	Dissolved Oxygen
Units:	(mg/L)	(°C)	(mg/L)	(NTU)	(mg/L)
JANUARY -2019	4.4	23.0	<0.03	2.55	5.43
FEBRUARY -2019	4.2	22.0	<0.03	2.74	5.08
MARCH -2019	4.6	23.1	0.03	2.83	4.30
APRIL -2019	4.0	24.2	0.03	1.53	4.53
MAY -2019	3.8	24.6	<0.03	2.25	3.75
JUNE -2019	6.6	25.4	ND	1.64	3.64
JULY -2019	4.6	26.6	0.15	2.03	3.31
AUGUST -2019	5.4	27.7	ND	1.51	3.52
SEPTEMBER-2019	4.8	27.9	ND	1.29	3.64
OCTOBER -2019	4.7	26.6	<0.03	1.56	3.86
NOVEMBER -2019	4.7	25.1	<0.03	1.77	3.45
DECEMBER -2019	4.0	23.2	<0.03	2.24	4.88
Average	4.7	25.0	0.02	2.00	4.12

ND=not detected; NR=not required

SOUTH BAY WATER RECLAMATION PLANT
SAMPLE SOURCE: INFLUENT (SB_INF_02) AND EFFLUENT (SB_OUTFALL_01)

Trace Metals

Annual 2019

Analyte:	Aluminum	Aluminum	Antimony	Antimony	Arsenic	Arsenic
MAX_MDL Units:	57.9 UG/L	57.9 UG/L	2.43 UG/L	2.43 UG/L	2.4 UG/L	2.4 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:						2800
JANUARY -2019	364	22.7	1.11	0.836	1.39	0.948
FEBRUARY -2019	667	16.5	1.20	0.699	2.07	1.28
MARCH -2019	892	34.6	1.26	0.714	1.54	1.13
APRIL -2019	1070	19.7	1.24	0.812	1.54	0.955
MAY -2019	645	25.1	1.31	0.770	1.50	0.964
JUNE -2019	561	21.5	1.48	0.843	1.28	0.757
JULY -2019	598	19.7	1.43	0.805	1.26	0.777
AUGUST -2019	556	20.1	1.46	1.020	1.71	1.03
SEPTEMBER-2019	672	22.9	1.33	0.844	1.40	0.728
OCTOBER -2019	884	19.7	1.27	0.775	1.42	0.680
NOVEMBER -2019	916	24.2	1.34	0.977	1.28	0.877
DECEMBER -2019	981	ND	ND	ND	ND	ND
AVERAGE	734	20.6	1.20	0.758	1.37	0.844

Analyte:	Barium	Barium	Beryllium	Beryllium	Boron	Boron
MAX_MDL Units:	.17 UG/L	.17 UG/L	.156 UG/L	.156 UG/L	3.86 UG/L	3.86 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:						
JANUARY -2019	81.4	50.7	ND	ND	392	376
FEBRUARY -2019	71.2	43.6	ND	ND	393	346
MARCH -2019	71.7	45.4	ND	ND	460	417
APRIL -2019	64.9	40.1	ND	ND	472	411
MAY -2019	72.3	32.5	ND	ND	397	357
JUNE -2019	73.8	42.1	ND	ND	531	457
JULY -2019	71.5	41.9	ND	ND	417	396
AUGUST -2019	81.0	37.6	ND	ND	366	390
SEPTEMBER-2019	66.8	34.7	ND	ND	416	444
OCTOBER -2019	64.7	39.0	ND	ND	385	424
NOVEMBER -2019	63.5	34.3	ND	ND	432	407
DECEMBER -2019	57.8	36.6	ND	ND	363	378
AVERAGE	70.1	39.9	0.0	0.0	419	400

Analyte:	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt
MAX_MDL Units:	.452 UG/L	.452 UG/L	7.17 UG/L	7.17 UG/L	.618 UG/L	.618 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:		48		760		
JANUARY -2019	0.169	ND	1.78	0.364	0.349	0.155
FEBRUARY -2019	0.116	ND	7.60	0.338	0.558	0.209
MARCH -2019	0.111	ND	2.38	0.412	0.465	0.239
APRIL -2019	0.166	ND	4.27	0.390	0.537	0.206
MAY -2019	0.139	ND	2.62	0.490	0.490	0.198
JUNE -2019	0.141	ND	2.46	0.490	0.481	0.238
JULY -2019	0.133	ND	3.42	0.393	0.414	0.177
AUGUST -2019	0.102	ND	8.13	0.529	0.770	0.230
SEPTEMBER-2019	0.213	ND	2.56	0.416	0.383	0.168
OCTOBER -2019	0.200	ND	2.90	0.353	0.540	0.186
NOVEMBER -2019	0.105	ND	14.0	0.459	0.633	0.174
DECEMBER -2019	ND	ND	ND	ND	0.892	ND
AVERAGE	0.133	0.0	4.34	0.386	0.543	0.182

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
SAMPLE SOURCE: INFLUENT (SB_INF_02) AND EFFLUENT (SB_OUTFALL_01)

Trace Metals

Annual 2019

Analyte:	Copper	Copper	Iron	Iron	Lead	Lead
MAX_MDL Units:	9.37 UG/L	9.37 UG/L	42.6 UG/L	42.6 UG/L	5.93 UG/L	5.93 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:		960				760
JANUARY -2019	66.2	5.25	536	44.7	1.07	0.214
FEBRUARY -2019	65.2	5.27	979	ND	1.39	0.250
MARCH -2019	77.8	8.32	613	58.3	1.51	0.259
APRIL -2019	127	11.3	925	ND	1.43	0.191
MAY -2019	85.6	7.46	856	45.5	1.59	0.234
JUNE -2019	99.4	8.76	672	58.0	1.44	0.296
JULY -2019	81.8	7.18	627	ND	1.20	0.166
AUGUST -2019	230	9.39	2030	ND	1.40	0.211
SEPTEMBER-2019	82.3	14.0	649	82.0	1.22	0.175
OCTOBER -2019	104	6.23	1200	45.5	1.35	0.194
NOVEMBER -2019	66.8	6.66	854	44.4	1.40	0.196
DECEMBER -2019	77.2	ND	838	66.3	ND	ND
AVERAGE	96.9	7.49	898	37.1	1.25	0.199

Analyte:	Manganese	Manganese	Mercury	Mercury	Molybdenum	Molybdenum
MAX_MDL Units:	1.24 UG/L	1.24 UG/L	.003 UG/L	.0011 UG/L	.742 UG/L	.742 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:				15.00		
JANUARY -2019	123	11.0	0.081	0.004	5.61	4.00
FEBRUARY -2019	102	6.83	0.075	0.003	20.2	8.63
MARCH -2019	101	22.5	0.087	0.004	6.83	4.55
APRIL -2019	97.8	10.7	0.089	ND	8.56	4.16
MAY -2019	112	6.14	0.091	ND	6.66	3.53
JUNE -2019	115	28.5	0.095	0.002	7.10	4.01
JULY -2019	97.3	13.3	0.107	ND	5.57	2.87
AUGUST -2019	106	28.4	0.105	0.003	6.78	3.52
SEPTEMBER-2019	93.3	32.4	0.118	0.002	5.76	2.68
OCTOBER -2019	82.4	19.7	0.200	0.002	5.55	1.55
NOVEMBER -2019	93.8	24.5	0.036	0.002	6.58	2.82
DECEMBER -2019	118	13.7	0.073	0.002	5.25	3.16
AVERAGE	103	18.1	0.096	0.002	7.54	3.79

Analyte:	Nickel	Nickel	Selenium	Selenium	Silver	Silver
MAX_MDL Units:	3.35 UG/L	3.35 UG/L	5.78 UG/L	5.78 UG/L	1.57 UG/L	1.57 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:		1900		5700		250
JANUARY -2019	3.24	1.88	1.97	ND	0.156	ND
FEBRUARY -2019	6.40	1.70	1.96	ND	0.146	ND
MARCH -2019	3.64	2.08	1.63	0.925	0.188	ND
APRIL -2019	5.47	1.94	2.03	ND	0.268	ND
MAY -2019	4.16	2.32	1.63	ND	0.206	ND
JUNE -2019	4.93	2.31	1.60	ND	ND	ND
JULY -2019	4.40	1.64	1.44	ND	ND	ND
AUGUST -2019	9.17	2.84	1.20	ND	ND	ND
SEPTEMBER-2019	3.81	2.29	1.10	ND	0.223	ND
OCTOBER -2019	4.40	1.96	1.25	ND	0.189	ND
NOVEMBER -2019	10.6	1.77	<0.85	ND	0.124	ND
DECEMBER -2019	4.63	ND	ND	ND	ND	ND
AVERAGE	5.40	1.89	1.32	0.077	0.125	0.0

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
SAMPLE SOURCE: INFLUENT (SB_INF_02) AND EFFLUENT (SB_OUTFALL_01)

Trace Metals

Annual 2019

Analyte:	Thallium	Thallium	Vanadium	Vanadium	Zinc	Zinc
MAX_MDL Units:	3.37 UG/L	3.37 UG/L	1.10 UG/L	1.10 UG/L	10.4 UG/L	10.4 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:						6900
JANUARY -2019	ND	ND	3.33	1.63	140	47.4
FEBRUARY -2019	ND	ND	5.73	2.43	128	48.8
MARCH -2019	ND	ND	4.96	2.32	158	50.1
APRIL -2019	ND	ND	4.35	2.02	163	44.3
MAY -2019	ND	ND	4.63	1.88	177	54.6
JUNE -2019	ND	ND	3.60	1.71	174	63.9
JULY -2019	ND	ND	3.38	1.71	168	51.4
AUGUST -2019	ND	ND	5.25	1.75	213	68.1
SEPTEMBER-2019	ND	ND	3.04	1.59	180	56.1
OCTOBER -2019	ND	ND	3.26	1.56	204	63.5
NOVEMBER -2019	ND	ND	4.04	1.81	153	60.0
DECEMBER -2019	ND	ND	3.86	2.32	154	57.7
AVERAGE	0.0	0.0	4.12	1.90	168	55.5

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
SAMPLE SOURCE: INFLUENT (SB_INF_02) AND EFFLUENT (SB_OUTFALL_01)

Ammonia-Nitrogen and Total Cyanides

Annual 2019

Analyte:	Ammonia-N	Ammonia-N	Total Cyanide	Total Cyanide
Max MDL/ Units:	0.3	0.3	5 UG/L	5 UG/L
Source:	SB_INF_02	SB_OUTFALL_01	SB_INF_02	SB_OUTFALL_01
JANUARY -2019	47.8	ND	ND	ND
FEBRUARY -2019	36.1	ND	ND	ND
MARCH -2019	40.0	ND	ND	ND
APRIL -2019	40.3	ND	ND	ND
MAY -2019	43.4	ND	ND	ND
JUNE -2019	41.8	ND	ND	ND
JULY -2019	41.0	ND	ND	ND
AUGUST -2019	43.6	ND	ND	ND
SEPTEMBER-2019	43.4	ND	ND	ND
OCTOBER -2019	40.5	ND	ND	ND
NOVEMBER -2019	41.8	ND	ND	ND
DECEMBER -2019	43.0	ND	ND	ND
Average:	41.9	0.0	0.0	0.0

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
SAMPLE SOURCE: INFLUENT (SB_INF_02) AND EFFLUENT (SB_OUTFALL_01)

Anions

ANNUAL 2019

Analyte:	Bromide	Bromide	Chloride	Chloride	Fluoride	Fluoride
Max MDL:	0.1	0.1	15	15	0.092	0.092
Units:	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
Source:	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
JANUARY -2019	0.681	0.378	248	271	0.271	0.484
FEBRUARY -2019	0.557	0.508	262	299	0.443	0.568
MARCH -2019	0.532	0.615	261	309	0.540	0.542
APRIL -2019	0.526	0.643	272	328	0.532	0.587
MAY -2019	0.499	0.471	250	265	0.494	0.513
JUNE -2019	0.456	0.435	263	260	0.507	0.450
JULY -2019	0.494	0.458	254	280	0.471	0.427
AUGUST -2019	0.437	0.428	251	262	0.506	0.479
SEPTEMBER-2019	0.422	0.390	241	255	0.486	0.535
OCTOBER -2019	0.476	0.342	239	262	0.513	0.610
NOVEMBER -2019	0.529	0.450	242	257	0.459	0.641
DECEMBER -2019	0.432	0.472	248	253	0.491	0.601
AVERAGE	0.503	0.466	253	275	0.476	0.536

Analyte:	Nitrate	Nitrate	O-Phosphate	O-Phosphate (as P)	Sulfate	Sulfate
Max MDL:	1	6	0.26	0.26	15	15
Units:	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
Source:	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
JANUARY -2019	1.20	46.2	10.6	6.50	130	184
FEBRUARY -2019	1.31	42.4	9.38	8.91	126	166
MARCH -2019	0.872	40.7	9.31	8.45	101	158
APRIL -2019	0.809	35.6	11.9	5.74	101	155
MAY -2019	1.20	44.8	11.3	9.95	88.6	132
JUNE -2019	0.127	40.9	9.67	2.59	88.9	122
JULY -2019	0.254	41.7	11.4	1.19	77.9	123
AUGUST -2019	0.178	39.7	13.0	11.0	75.3	114
SEPTEMBER-2019	<0.24	41.9	9.25	3.34	90.2	122
OCTOBER -2019	0.374	36.1	10.3	0.518	96.4	123
NOVEMBER -2019	ND	44.7	11.2	8.70	92.8	137
DECEMBER -2019	<0.24	45.8	11.6	4.32	112	136
AVERAGE	0.527	41.7	10.7	5.93	98.3	139

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
SAMPLE SOURCE: INFLUENT (SB_INF_02) AND EFFLUENT (SB_OUTFALL_01)

Cations

Annual 2019

Analyte:	Calcium		Magnesium		Lithium	
Max MDL/ Units:	0.03 mg/L		0.029 mg/L		0.003 mg/L	
Source:	INF	EFF	INF	EFF	INF	EFF
JANUARY -2019	66.6	68.4	30.0	28.5	0.024	0.022
FEBRUARY -2019	67.5	67.3	30.7	31.2	0.023	0.019
MARCH -2019	61.7	65.5	28.1	29.6	0.018	0.020
APRIL -2019	62.0	68.4	28.9	31.4	0.015	0.018
MAY -2019	56.5	60.3	25.8	27.4	0.015	0.015
JUNE -2019	56.6	58.4	26.3	24.9	0.014	0.013
JULY -2019	55.8	58.9	25.6	26.0	0.014	0.015
AUGUST -2019	47.4	52.2	20.8	22.7	0.012	0.014
SEPTEMBER-2019	52.8	53.1	23.3	21.6	0.015	0.013
OCTOBER -2019	49.6	52.6	22.6	21.3	0.016	0.013
NOVEMBER -2019	51.5	52.1	23.7	22.7	0.015	0.015
DECEMBER -2019	55.4	58.2	25.0	24.5	0.013	0.014
Average:	57.0	59.6	25.9	26.0	0.016	0.016

Analyte:	Sodium		Potassium	
Max MDL/ Units:	1 mg/L		0.18 mg/L	
Source:	INF	EFF	INF	EFF
JANUARY -2019	207	218	21.0	19.1
FEBRUARY -2019	221	231	19.2	18.0
MARCH -2019	208	231	19.3	18.2
APRIL -2019	217	240	20.6	18.9
MAY -2019	202	206	19.5	18.6
JUNE -2019	206	204	19.6	17.6
JULY -2019	198	213	19.3	17.6
AUGUST -2019	185	197	17.8	17.3
SEPTEMBER-2019	185	193	18.8	16.3
OCTOBER -2019	188	199	19.0	16.6
NOVEMBER -2019	193	204	19.8	18.3
DECEMBER -2019	197	191	18.4	17.1
Average:	201	211	19.4	17.8

ND=not detected

SOUTH BAY WATER RECLAMATION PLANT
SOURCE: INFLUENT (SB_INF_02)

CHLORINATED PESTICIDE ANALYSIS, EPA Method 608 and 608.3 (WITH ADDITIONS)

Annual 2019

Source:			INFLUENT				
Date:			FEB	MAY	AUG	OCT	
Analyte	Max MDL	Units					Avg
Aldrin	2.65	NG/L	ND	ND	ND	ND	ND
Dieldrin	4.93	NG/L	ND	ND	ND	ND	ND
BHC, Alpha isomer	2.21	NG/L	ND	ND	ND	ND	ND
BHC, Beta isomer	3.33	NG/L	ND	ND	ND	ND	ND
BHC, Gamma isomer	1.76	NG/L	ND	ND	ND	ND	ND
BHC, Delta isomer	2.9	NG/L	ND	ND	ND	ND	ND
p,p-DDD	3.7	NG/L	ND	ND	ND	ND	ND
p,p-DDE	3.15	NG/L	ND	ND	ND	ND	ND
p,p-DDT	5.05	NG/L	ND	ND	ND	ND	ND
o,p-DDD	3.03	NG/L	ND	ND	ND	ND	ND
o,p-DDE	3.66	NG/L	ND	ND	ND	ND	ND
o,p-DDT	2.78	NG/L	ND	ND	ND	ND	ND
Heptachlor	3.11	NG/L	ND	ND	ND	ND	ND
Heptachlor epoxide	3.34	NG/L	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	3.37	NG/L	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	1.88	NG/L	ND	ND	ND	ND	ND
Alpha Chlordene	0	NG/L	NA	NA	NA	NA	NA
Gamma Chlordene	0	NG/L	NA	NA	NA	NA	NA
Oxychlordane	7.64	NG/L	ND	ND	ND	ND	ND
Trans Nonachlor	3.38	NG/L	ND	ND	ND	ND	ND
Cis Nonachlor	3.37	NG/L	ND	ND	ND	ND	ND
Alpha Endosulfan	3.1	NG/L	ND	ND	ND	ND	ND
Beta Endosulfan	2.87	NG/L	ND	ND	ND	ND	ND
Endosulfan Sulfate	3.53	NG/L	ND	ND	ND	ND	ND
Endrin	2.92	NG/L	ND	ND	ND	ND	ND
Endrin aldehyde	4.55	NG/L	ND	ND	ND	ND	ND
Mirex	9.47	NG/L	ND	ND	ND	ND	ND
Methoxychlor	3.25	NG/L	ND	ND	ND	ND	ND
Toxaphene	257	NG/L	ND	ND	ND	ND	ND
PCB 1016	282	NG/L	ND	ND	ND	ND	ND
PCB 1221	2058	NG/L	ND	ND	ND	ND	ND
PCB 1232	772	NG/L	ND	ND	ND	ND	ND
PCB 1242	282	NG/L	ND	ND	ND	ND	ND
PCB 1248	282	NG/L	ND	ND	ND	ND	ND
PCB 1254	514	NG/L	ND	ND	ND	ND	ND
PCB 1260	514	NG/L	ND	ND	ND	ND	ND
PCB 1262	514	NG/L	ND	ND	ND	ND	ND
Aldrin + Dieldrin	4.93	NG/L	0	0	0	0	0
Hexachlorocyclohexanes	3.33	NG/L	0	0	0	0	0
DDT and derivatives	5.05	NG/L	0	0	0	0	0
Chlordane + related cmpds.	7.64	NG/L	0	0	0	0	0
Polychlorinated biphenyls	2058	NG/L	0	0	0	0	0
Endosulfans	3.53	NG/L	0	0	0	0	0
Heptachlors	3.34	NG/L	0	0	0	0	0
Chlorinated Hydrocarbons	2058	NG/L	0	0	0	0	0

ND= not detected; NA= not analyzed

Standards for alpha and gamma chlordene are no longer available in the U.S. for the analysis of these compounds.

SOUTH BAY WATER RECLAMATION PLANT
SOURCE: EFFLUENT (SB_OUTFALL_01)

CHLORINATED PESTICIDE ANALYSIS, EPA Method 608 and 608.3 (WITH ADDITIONS)

Annual 2019

Source:						EFFLUENT							
Date:			JAN	FEB	MAR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Analyte	Max MDL	Units												Avg
Aldrin	2.65	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	4.93	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	2.21	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	3.33	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	1.76	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Delta isomer	2.9	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDD	3.7	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDE	3.15	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDT	5.05	NG/L	ND	ND	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND
o,p-DDD	3.03	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDE	3.66	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDT	2.78	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	3.11	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	3.34	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	3.37	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	1.88	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha Chlordene	0	NG/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma Chlordene	0	NG/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxychlordane	7.64	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trans Nonachlor	3.38	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cis Nonachlor	3.37	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	3.1	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Beta Endosulfan	2.87	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	3.53	NG/L	ND	ND	ND	34.4	ND	ND	ND	ND	ND	ND	ND	2.87
Endrin	2.92	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	4.55	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mirex	9.47	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	3.25	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	257	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1016	282	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1221	2058	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1232	772	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1242	282	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1248	282	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1254	514	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1260	514	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1262	514	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin + Dieldrin	4.93	NG/L	0	0	0	0	0	0	0	0	0	0	0	0
Hexachlorocyclohexanes	3.33	NG/L	0	0	0	0	0	0	0	0	0	0	0	0
DDT and derivatives	5.05	NG/L	0	0	0	0	0	0	0	0	0	0	0	0
Chlordane + related cmpds.	7.64	NG/L	0	0	0	0	0	0	0	0	0	0	0	0
Polychlorinated biphenyls	2058	NG/L	0	0	0	0	0	0	0	0	0	0	0	0
Endosulfans	3.53	NG/L	0	0	0	34.4	0	0	0	0	0	0	0	2.87
Heptachlors	3.34	NG/L	0	0	0	0	0	0	0	0	0	0	0	0
Chlorinated Hydrocarbons	2058	NG/L	0	0	0	34.4	0	0	0	0	0	0	0	2.87

*= Analyte recovery in the closing calibration verification standard outside the method’s acceptance range; therefore, is not reportable

ND= not detected; NA= not analyzed

Standards for alpha and gamma chlordene are no longer available in the U.S. for the analysis of these compounds.

SOUTH BAY WATER RECLAMATION PLANT
SAMPLE SOURCE: INFLUENT(SB_INF_02) & EFFLUENT(SB_OUTFALL_01)

Organophosphorus Pesticides - EPA Method 614/622 (with additions)

Annual 2019

Source:			Influent	Influent	Influent	Effluent
Date:			07-MAY-2019	06-AUG-2019	01-OCT-2019	07-MAY-2019
Analyte	Max MDL	Units	P1088350	P1107725	P1120482	P1088355
Demeton O	0.274	UG/L	ND	ND	ND	ND
Demeton S	1.91	UG/L	ND	ND	ND	ND
Diazinon	0.444	UG/L	ND	ND	ND	ND
Guthion	0.828	UG/L	ND	ND	ND	ND
Malathion	0.344	UG/L	ND	ND	ND	ND
Parathion	0.153	UG/L	ND	ND	ND	ND
Dichlorvos	0.268	UG/L	ND	ND	ND	ND
Disulfoton	0.181	UG/L	ND	ND	ND	ND
Stirophos	0.33	UG/L	ND	ND	ND	ND
Coumaphos	0.2	UG/L	ND	ND	ND	ND
Chlorpyrifos	0.08	UG/L	ND	ND	ND	ND
Thiophosphorus Pesticides	0.828	UG/L	0.0	0.0	0.0	0.0
Demeton -O, -S	1.91	UG/L	0.0	0.0	0.0	0.0
Total Organophosphorus Pesticides	1.91	UG/L	0.0	0.0	0.0	0.0

Source:			Effluent	Effluent
Date:			06-AUG-2019	01-OCT-2019
Analyte	Max MDL	Units	P1107730	P1120487
Demeton O	0.274	UG/L	ND	ND
Demeton S	1.91	UG/L	ND	ND
Diazinon	0.444	UG/L	ND	ND
Guthion	0.828	UG/L	ND	ND
Malathion	0.344	UG/L	ND	ND
Parathion	0.153	UG/L	ND	ND
Dichlorvos	0.268	UG/L	ND	ND
Disulfoton	0.181	UG/L	ND	ND
Stirophos	0.332	UG/L	ND	ND
Coumaphos	0.2	UG/L	ND	ND
Chlorpyrifos	0.08	UG/L	ND	ND
Thiophosphorus Pesticides	0.828	UG/L	0.0	0.0
Demeton -O, -S	1.91	UG/L	0.0	0.0
Total Organophosphorus Pesticides	1.91	UG/L	0.0	0.0

ND=not detected

SOUTH BAY WATER RECLAMATION PLANT
SAMPLE SOURCE: INFLUENT (SB_INF_02)

Dioxin and Furan Analysis

Annual 2019

Source:				INF	INF	INF	INF
Date:				JAN	FEB	MAR	APR
Analyte	MDL	Units	Equiv	P1064415	P1071273	P1077138	P1082499
2,3,7,8-tetra CDD	0.448	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	0.2365	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	0.0548	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	0.0525	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	0.0502	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	0.00572	PG/L	0.010	DNQ13.4	DNQ20.7	DNQ10.2	DNQ18.2
octa CDD	0.00112	PG/L	0.001	100	190	91.0	130
2,3,7,8-tetra CDF	0.041	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	0.02485	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	0.2455	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	0.0506	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	0.052	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	0.0474	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	0.0504	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	0.00548	PG/L	0.010	DNQ2.30	DNQ6.07	ND	DNQ2.48
1,2,3,4,7,8,9-hepta CDF	0.00613	PG/L	0.010	ND	ND	ND	ND
octa CDF	0.00097	PG/L	0.001	DNQ5.06	DNQ10.6	DNQ5.52	DNQ5.72

Source:				INF	INF	INF	INF
Date:				MAY	JUN	JUL	AUG
Analyte	MDL	Units	Equiv	P1088350	P1096449	P1101301	P1107725
2,3,7,8-tetra CDD	0.448	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	0.2365	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	0.0548	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	0.0525	PG/L	0.100	DNQ2.79	ND	ND	DNQ3.08
1,2,3,7,8,9-hexa CDD	0.0502	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	0.00572	PG/L	0.010	DNQ23.6	DNQ14.7	DNQ13.6	DNQ22.7
octa CDD	0.00112	PG/L	0.001	120	97.0	77.0	80.0
2,3,7,8-tetra CDF	0.041	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	0.02485	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	0.2455	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	0.0506	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	0.052	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	0.0474	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	0.0504	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	0.00548	PG/L	0.010	DNQ4.03	ND	DNQ3.87	DNQ2.06
1,2,3,4,7,8,9-hepta CDF	0.00613	PG/L	0.010	ND	ND	ND	ND
octa CDF	0.00097	PG/L	0.001	DNQ6.37	DNQ5.63	DNQ5.25	DNQ4.42

Source:				INF	INF	INF	INF
Date:				SEP	OCT	NOV	DEC
Analyte	MDL	Units	Equiv	P1114920	P1120482	P1127186	P1132781
2,3,7,8-tetra CDD	0.448	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	0.2365	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	0.0548	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	0.0525	PG/L	0.100	DNQ3.02	DNQ3.77	ND	ND
1,2,3,7,8,9-hexa CDD	0.0502	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	0.00572	PG/L	0.010	37.1	DNQ25.6	DNQ8.53	DNQ10.9
octa CDD	0.00112	PG/L	0.001	1100	110	77.0	95.0
2,3,7,8-tetra CDF	0.041	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	0.02485	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	0.2455	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	0.0506	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	0.052	PG/L	0.100	ND	ND	ND	DNQ2.03
1,2,3,7,8,9-hexa CDF	0.0474	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	0.0504	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	0.00548	PG/L	0.010	DNQ9.20	DNQ2.53	DNQ2.13	DNQ2.42
1,2,3,4,7,8,9-hepta CDF	0.00613	PG/L	0.010	ND	ND	ND	ND
octa CDF	0.00097	PG/L	0.001	DNQ20.8	DNQ6.99	DNQ4.10	DNQ4.83

ND= not detected
DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.
Above are permit required CDD/CDF isomers.

SAMPLE SOURCE: EFFLUENT (SB_OUTFALL_01)

Dioxin and Furan Analysis

Annual 2019

Source:				EFF	EFF	EFF	EFF
Date:				JAN	FEB	MAR	APR
Analyte	MDL	Units	Equiv	P1064418	P1071278	P1077141	P1082502
2,3,7,8-tetra CDD	0.448	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	0.2365	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	0.0548	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	0.0525	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	0.0502	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	0.00572	PG/L	0.010	ND	ND	ND	ND
octa CDD	0.00112	PG/L	0.001	DNQ5.19	ND	DNQ7.97	ND
2,3,7,8-tetra CDF	0.041	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	0.02485	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	0.2455	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	0.0506	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	0.052	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	0.0474	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	0.0504	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	0.00548	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	0.00613	PG/L	0.010	ND	ND	ND	ND
octa CDF	0.00097	PG/L	0.001	ND	ND	ND	ND

Source:				EFF	EFF	EFF	EFF
Date:				MAY	JUN	JUL	AUG
Analyte	MDL	Units	Equiv	P1088355	P1096452	P1101304	P1107730
2,3,7,8-tetra CDD	0.448	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	0.2365	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	0.0548	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	0.0525	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	0.0502	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	0.00572	PG/L	0.010	ND	ND	ND	ND
octa CDD	0.00112	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	0.041	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	0.02485	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	0.2455	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	0.0506	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	0.052	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	0.0474	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	0.0504	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	0.00548	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	0.00613	PG/L	0.010	ND	ND	ND	ND
octa CDF	0.00097	PG/L	0.001	ND	ND	ND	ND

Source:				EFF	EFF	EFF	EFF
Date:				SEP	OCT	NOV	DEC
Analyte	MDL	Units	Equiv	P1114923	P1120487	P1127189	P1132784
2,3,7,8-tetra CDD	0.448	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	0.2365	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	0.0548	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	0.0525	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	0.0502	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	0.00572	PG/L	0.010	ND	ND	ND	ND
octa CDD	0.00112	PG/L	0.001	ND	ND	ND	DNQ5.42
2,3,7,8-tetra CDF	0.041	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	0.02485	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	0.2455	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	0.0506	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	0.052	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	0.0474	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	0.0504	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	0.00548	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	0.00613	PG/L	0.010	ND	ND	ND	ND
octa CDF	0.00097	PG/L	0.001	ND	ND	ND	ND

ND= not detected
DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.
Above are permit required CDD/CDF isomers.

SOUTH BAY WATER RECLAMATION PLANT
SOURCE: INFLUENT (SB_INF_02)

Dioxin and Furan Analysis

Annual 2019

Source:				INF	INF	INF	INF
				TCCD	TCCD	TCCD	TCCD
Date:				JAN	FEB	MAR	APR
Analyte	MDL	Units	Equiv	P1064415	P1071273	P1077138	P1082499
2,3,7,8-tetra CDD	0.448	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	0.2365	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	0.0548	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	0.0525	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	0.0502	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	0.00572	PG/L	0.010	DNQ0.134	DNQ0.207	DNQ0.102	DNQ0.182
octa CDD	0.00112	PG/L	0.001	0.10	0.19	0.091	0.13
2,3,7,8-tetra CDF	0.041	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	0.02485	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	0.2455	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	0.0506	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	0.052	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	0.0474	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	0.0504	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	0.00548	PG/L	0.010	DNQ0.023	DNQ0.061	ND	DNQ0.025
1,2,3,4,7,8,9-hepta CDF	0.00613	PG/L	0.010	ND	ND	ND	ND
octa CDF	0.00097	PG/L	0.001	DNQ0.005	DNQ0.011	DNQ0.006	DNQ0.006

Source:				INF	INF	INF	INF
				TCCD	TCCD	TCCD	TCCD
Date:				MAY	JUN	JUL	AUG
Analyte	MDL	Units	Equiv	P1088350	P1096449	P1101301	P1107725
2,3,7,8-tetra CDD	0.448	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	0.2365	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	0.0548	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	0.0525	PG/L	0.100	DNQ0.279	ND	ND	DNQ0.308
1,2,3,7,8,9-hexa CDD	0.0502	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	0.00572	PG/L	0.010	DNQ0.236	DNQ0.147	DNQ0.136	DNQ0.227
octa CDD	0.00112	PG/L	0.001	0.12	0.097	0.077	0.08
2,3,7,8-tetra CDF	0.041	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	0.02485	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	0.2455	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	0.0506	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	0.052	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	0.0474	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	0.0504	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	0.00548	PG/L	0.010	DNQ0.04	ND	DNQ0.039	DNQ0.021
1,2,3,4,7,8,9-hepta CDF	0.00613	PG/L	0.010	ND	ND	ND	ND
octa CDF	0.00097	PG/L	0.001	DNQ0.006	DNQ0.006	DNQ0.005	DNQ0.004

Source:				INF	INF	INF	INF
				TCCD	TCCD	TCCD	TCCD
Date:				SEP	OCT	NOV	DEC
Analyte	MDL	Units	Equiv	P1114920	P1120482	P1127186	P1132781
2,3,7,8-tetra CDD	0.448	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	0.2365	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	0.0548	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	0.0525	PG/L	0.100	DNQ0.302	DNQ0.377	ND	ND
1,2,3,7,8,9-hexa CDD	0.0502	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	0.00572	PG/L	0.010	0.371	DNQ0.256	DNQ0.085	DNQ0.109
octa CDD	0.00112	PG/L	0.001	1.10	0.11	0.077	0.095
2,3,7,8-tetra CDF	0.041	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	0.02485	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	0.2455	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	0.0506	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	0.052	PG/L	0.100	ND	ND	ND	DNQ0.203
1,2,3,7,8,9-hexa CDF	0.0474	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	0.0504	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	0.00548	PG/L	0.010	DNQ0.092	DNQ0.025	DNQ0.021	DNQ0.024
1,2,3,4,7,8,9-hepta CDF	0.00613	PG/L	0.010	ND	ND	ND	ND
octa CDF	0.00097	PG/L	0.001	DNQ0.021	DNQ0.007	DNQ0.004	DNQ0.005

ND= not detected
DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.
Above are permit required CDD/CDF isomers.

SOUTH BAY WATER RECLAMATION PLANT
SOURCE: EFFLUENT (SB_OUTFALL_01)

Dioxin and Furan Analysis

Annual 2019

Effluent Limit (TCDD): 0.37 pg/L (30-day Average)

Source:				EFF	EFF	EFF	EFF
				TCCD	TCCD	TCCD	TCCD
Date:				JAN	FEB	MAR	APR
Analyte	MDL	Units	Equiv	P1064418	P1071278	P1077141	P1082502
2,3,7,8-tetra CDD	0.448	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	0.2365	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	0.0548	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	0.0525	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	0.0502	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	0.00572	PG/L	0.010	ND	ND	ND	ND
octa CDD	0.00112	PG/L	0.001	DNQ0.005	ND	DNQ0.008	ND
2,3,7,8-tetra CDF	0.041	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	0.02485	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	0.2455	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	0.0506	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	0.052	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	0.0474	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	0.0504	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	0.00548	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	0.00613	PG/L	0.010	ND	ND	ND	ND
octa CDF	0.00097	PG/L	0.001	ND	ND	ND	ND

Source:				EFF	EFF	EFF	EFF
				TCCD	TCCD	TCCD	TCCD
Date:				MAY	JUN	JUL	AUG
Analyte	MDL	Units	Equiv	P1088355	P1096452	P1101304	P1107730
2,3,7,8-tetra CDD	0.448	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	0.2365	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	0.0548	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	0.0525	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	0.0502	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	0.00572	PG/L	0.010	ND	ND	ND	ND
octa CDD	0.00112	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	0.041	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	0.02485	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	0.2455	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	0.0506	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	0.052	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	0.0474	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	0.0504	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	0.00548	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	0.00613	PG/L	0.010	ND	ND	ND	ND
octa CDF	0.00097	PG/L	0.001	ND	ND	ND	ND

Source:				EFF	EFF	EFF	EFF
				TCCD	TCCD	TCCD	TCCD
Date:				SEP	OCT	NOV	DEC
Analyte	MDL	Units	Equiv	P1114923	P1120487	P1127189	P1132784
2,3,7,8-tetra CDD	0.448	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	0.2365	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	0.0548	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	0.0525	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	0.0502	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	0.00572	PG/L	0.010	ND	ND	ND	ND
octa CDD	0.00112	PG/L	0.001	ND	ND	ND	DNQ0.005
2,3,7,8-tetra CDF	0.041	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	0.02485	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	0.2455	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	0.0506	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	0.052	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	0.0474	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	0.0504	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	0.00548	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	0.00613	PG/L	0.010	ND	ND	ND	ND
octa CDF	0.00097	PG/L	0.001	ND	ND	ND	ND

ND= not detected
DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.
Above are permit required CDD/CDF isomers.

SOUTH BAY WATER RECLAMATION PLANT
SAMPLE SOURCE: INFLUENT (SB_INF_02) AND EFFLUENT (SB_OUTFALL_01)

PRIORITY POLLUTANT ANALYSIS-ACID EXTRACTABLE COMPOUNDS, EPA Method 625 and 625.1

Annual 2019

Source:			INFLUENT				
Date:			FEB	MAY	AUG	OCT	
Analyte	Max MDL	Units					Average
2-Chlorophenol	5.6	UG/L	ND	ND	ND	ND	0.0
2,4-Dichlorophenol	5.2	UG/L	ND	ND	ND	ND	0.0
4-Chloro-3-methylphenol	4.6	UG/L	ND	ND	ND	ND	0.0
2,4,6-Trichlorophenol	4.4	UG/L	ND	ND	ND	ND	0.0
Pentachlorophenol	8	UG/L	ND	ND	ND	ND	0.0
Phenol	3.61	UG/L	30.3	56.9	59.3	21.0	41.9
2-Nitrophenol	5.2	UG/L	ND	ND	ND	ND	0.0
2,4-Dimethylphenol	6	UG/L	ND	ND	ND	ND	0.0
2,4-Dinitrophenol	7.5	UG/L	ND	ND	ND	ND	0.0
4-Nitrophenol	4.9	UG/L	ND	ND	ND	ND	0.0
4,6-dinitro-2-methylphenol	5.6	UG/L	ND	ND	ND	ND	0.0
2-Methylphenol	4.41	UG/L	ND	ND	ND	NA*	0.0
3-Methylphenol(4-MP is unresolved)		UG/L	NA	NA	NA	NA*	NA
4-Methylphenol(3-MP is unresolved)	4.33	UG/L	63.1	111.0	81.6	NA*	85.2
2,4,5-Trichlorophenol	3.41	UG/L	ND	ND	ND	NA*	0.0
Total Chlorinated Phenols	8	UG/L	0.0	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	7.5	UG/L	93.4	168	141	21.0	106
Total Phenols	8	UG/L	93.4	168	141	21.0	106

Source:			EFFLUENT										
Date:			JAN	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Analyte	Max MDL	Units												Average
2-Chlorophenol	5.6	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0
2,4-Dichlorophenol	5.2	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0
4-Chloro-3-methylphenol	4.6	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0
2,4,6-Trichlorophenol	4.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0
Pentachlorophenol	8	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0
Phenol	3.61	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0
2-Nitrophenol	5.2	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0
2,4-Dimethylphenol	6	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0
2,4-Dinitrophenol	7.5	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0
4-Nitrophenol	4.9	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0
4,6-dinitro-2-methylphenol	5.6	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0
2-Methylphenol	4.41	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	NA*	NA*	ND	0.0
3-Methylphenol(4-MP is unresolved)		UG/L	NA	NA	NA	NA	NA	NA	NA	NA	NA*	NA*	NA	NA
4-Methylphenol(3-MP is unresolved)	4.33	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	NA*	NA*	ND	0.0
2,4,5-Trichlorophenol	3.41	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	NA*	NA*	ND	0.0
Total Chlorinated Phenols	8	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	7.5	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Phenols	8	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

*= not analyzed by WECK Laboratories

ND=not detected; NA=not analyzed

SOUTH BAY WATER RECLAMATION PLANT
SAMPLE SOURCE: INFLUENT (SB_INF_02)

Priority Pollutants Base/Neutral Compounds, EPA Method 625 and 625.1

Annual 2019

Source:			INFLUENT				
Date:			FEB	MAY	AUG	OCT	
Analyte	Max MDL	Units	Avg	Avg	Avg	Avg	Average
Bis-(2-chloroethyl) ether	5.4	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	7.6	UG/L	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	5.2	UG/L	ND	ND	ND	ND	ND
Nitrobenzene	7.2	UG/L	ND	ND	ND	ND	ND
Hexachloroethane	10	UG/L	ND	ND	ND	ND	ND
Isophorone	4.2	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroethoxy) methane	5	UG/L	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9.8	UG/L	ND	ND	ND	ND	ND
Naphthalene	9.8	UG/L	ND	ND	ND	ND	ND
Hexachlorobutadiene	9.4	UG/L	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	7.8	UG/L	ND	ND	ND	ND	ND
Acenaphthylene	3.63	UG/L	ND	ND	ND	ND	ND
Dimethyl phthalate	3.6	UG/L	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	5.4	UG/L	ND	ND	ND	ND	ND
Acenaphthene	7.6	UG/L	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	3.6	UG/L	ND	ND	ND	ND	ND
Fluorene	7	UG/L	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	8.2	UG/L	ND	ND	ND	ND	ND
Diethyl phthalate	6.26	UG/L	3.37	5.23	5.39	ND	3.50
N-nitrosodiphenylamine	7.15	UG/L	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	7.2	UG/L	ND	ND	ND	ND	ND
Hexachlorobenzene	9.8	UG/L	ND	ND	ND	ND	ND
Phenanthrene	6.4	UG/L	ND	ND	ND	ND	ND
Anthracene	2.65	UG/L	ND	ND	ND	ND	ND
Di-n-butyl phthalate	8.13	UG/L	ND	ND	ND	ND	ND
N-nitrosodimethylamine	10	UG/L	ND	ND	ND	ND	ND
Fluoranthene	2.73	UG/L	ND	ND	ND	ND	ND
Pyrene	5	UG/L	ND	ND	ND	ND	ND
Benzidine	21	UG/L	ND	ND	ND^	ND	ND
Butyl benzyl phthalate	5.83	UG/L	ND	ND	ND	ND	ND
Chrysene	3.8	UG/L	ND	ND	ND	ND	ND
Benzo[a]anthracene	3.8	UG/L	ND	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	46	UG/L	ND	ND	ND	ND	ND
Di-n-octyl phthalate	9.2	UG/L	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	24	UG/L	ND	ND	ND^	ND	ND
Benzo[k]fluoranthene	4.4	UG/L	ND	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	9.2	UG/L	ND	ND	ND	ND	ND
Benzo[a]pyrene	7.8	UG/L	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	11	UG/L	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	11	UG/L	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	8.4	UG/L	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	6	UG/L	ND	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons	11	UG/L	0.0	0.0	0.0	0.0	0.0
Base/Neutral Compounds	46	UG/L	3.37	5.23	5.39	0.0	3.50
Additional analytes determined							
1-Methylnaphthalene	4.48	UG/L	ND	ND	ND	NA*	ND
2-Methylnaphthalene	4.39	UG/L	ND	ND	ND	NA*	ND
2,6-Dimethylnaphthalene	4.44	UG/L	ND	ND	ND	NA*	ND
2,3,5-Trimethylnaphthalene	4.48	UG/L	ND	ND	ND	NA*	ND
1-Methylphenanthrene	3	UG/L	ND	ND	ND	NA*	ND
Benzo[e]pyrene	2.96	UG/L	ND	ND	ND	NA*	ND
Perylene	2.9	UG/L	ND	ND	ND	NA*	ND
Biphenyl	4.7	UG/L	ND	ND	ND	NA*	ND

^= analyte quality control criteria not met; sample result not included in average calculations
*= not analyzed by WECK Laboratories
ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
SAMPLE SOURCE: EFFLUENT (SB_OUTFALL_01)

Priority Pollutants Base/Neutral Compounds, EPA Method 625

Annual 2019

Source:			EFFLUENT				
Date:			FEB	MAY	AUG	OCT	
Analyte	Max MDL	Units	Avg	Avg	Avg	Avg	Average
Bis-(2-chloroethyl) ether	5.4	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	7.6	UG/L	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	5.2	UG/L	ND	ND	ND	ND	ND
Nitrobenzene	7.2	UG/L	ND	ND	ND	ND	ND
Hexachloroethane	10	UG/L	ND	ND	ND	ND	ND
Isophorone	4.2	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroethoxy) methane	5	UG/L	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9.8	UG/L	ND	ND	ND	ND	ND
Naphthalene	9.8	UG/L	ND	ND	ND	ND	ND
Hexachlorobutadiene	9.4	UG/L	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	7.8	UG/L	ND	ND	ND	ND	ND
Acenaphthylene	3.63	UG/L	ND	ND	ND	ND	ND
Dimethyl phthalate	3.6	UG/L	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	5.4	UG/L	ND	ND	ND	ND	ND
Acenaphthene	7.6	UG/L	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	3.6	UG/L	ND	ND	ND	ND	ND
Fluorene	7	UG/L	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	8.2	UG/L	ND	ND	ND	ND	ND
Diethyl phthalate	6.26	UG/L	ND	ND	ND	ND	ND
N-nitrosodiphenylamine	7.15	UG/L	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	7.2	UG/L	ND	ND	ND	ND	ND
Hexachlorobenzene	9.8	UG/L	ND	ND	ND	ND	ND
Phenanthrene	6.4	UG/L	ND	ND	ND	ND	ND
Anthracene	2.65	UG/L	ND	ND	ND	ND	ND
Di-n-butyl phthalate	8.13	UG/L	ND	ND	ND	ND	ND
N-nitrosodimethylamine	10	UG/L	ND	ND	ND	ND	ND
Fluoranthene	2.73	UG/L	ND	ND	ND	ND	ND
Pyrene	5	UG/L	ND	ND	ND	ND	ND
Benzidine	21	UG/L	ND	ND	ND^	ND	ND
Butyl benzyl phthalate	5.83	UG/L	ND	ND	ND	ND	ND
Chrysene	3.8	UG/L	ND	ND	ND	ND	ND
Benzo[a]anthracene	3.8	UG/L	ND	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	46	UG/L	ND	ND	ND	ND	ND
Di-n-octyl phthalate	9.2	UG/L	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	24	UG/L	ND	ND	ND^	ND	ND
Benzo[k]fluoranthene	4.4	UG/L	ND	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	9.2	UG/L	ND	ND	ND	ND	ND
Benzo[a]pyrene	7.8	UG/L	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	11	UG/L	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	11	UG/L	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	8.4	UG/L	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	6	UG/L	ND	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons	11	UG/L	0.0	0.0	0.0	0.0	0.0
Base/Neutral Compounds	46	UG/L	0.0	0.0	0.0	0.0	0.0
Additional analytes determined							
1-Methylnaphthalene	4.48	UG/L	ND	ND	ND	NA*	ND
2-Methylnaphthalene	4.39	UG/L	ND	ND	ND	NA*	ND
2,6-Dimethylnaphthalene	4.44	UG/L	ND	ND	ND	NA*	ND
2,3,5-Trimethylnaphthalene	4.48	UG/L	ND	ND	ND	NA*	ND
1-Methylphenanthrene	3	UG/L	ND	ND	ND	NA*	ND
Benzo[e]pyrene	2.96	UG/L	ND	ND	ND	NA*	ND
Perylene	2.9	UG/L	ND	ND	ND	NA*	ND
Biphenyl	4.7	UG/L	ND	ND	ND	NA*	ND

^= analyte quality control criteria not met; sample result not included in average calculations
*= not analyzed by WECK Laboratories
ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
SOURCE: INFLUENT (SB_INF_02)
Priority Pollutants Purgeable Compounds, EPA Method 624 and 624.1

Annual 2019

Source:			INFLUENT				
Date:			FEB	MAY	AUG	OCT**	
Analyte	Max MDL	Units					Average
Dichlorodifluoromethane	0.44	UG/L	NA*	NA*	NA*	ND	ND
Chloromethane	0.26	UG/L	ND	ND	ND	ND	ND
Vinyl chloride	0.33	UG/L	ND	ND	ND	ND	ND
Bromomethane	0.47	UG/L	ND	ND	ND	ND	ND
Chloroethane	0.24	UG/L	ND	ND	ND	ND	ND
Trichlorofluoromethane	0.53	UG/L	ND	ND	ND	ND	ND
Acrolein	2.2	UG/L	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.28	UG/L	ND	ND	ND	ND	ND
Methylene chloride	0.37	UG/L	2.45^	1.08	DNQ0.84	ND	0.36
trans-1,2-dichloroethene	0.34	UG/L	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.39	UG/L	ND	ND	ND	ND	ND
Acrylonitrile	0.66	UG/L	ND	ND	ND	ND	ND
Chloroform	0.3	UG/L	1.41	5.72	1.65	1.40	2.55
1,1,1-Trichloroethane	0.4	UG/L	ND	ND	ND	ND	ND
Carbon tetrachloride	0.4	UG/L	ND	ND	ND	ND	ND
Benzene	0.47	UG/L	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.54	UG/L	ND	ND	ND	ND	ND
Trichloroethene	0.43	UG/L	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.43	UG/L	ND	ND	ND	ND	ND
Bromodichloromethane	0.37	UG/L	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	0.28	UG/L	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	0.38	UG/L	ND	ND	ND	ND	ND
Toluene	0.37	UG/L	DNQ0.67	DNQ0.70	DNQ0.93	ND	ND
trans-1,3-dichloropropene	0.35	UG/L	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.32	UG/L	ND	ND	ND	ND	ND
Tetrachloroethene	0.4	UG/L	ND	ND	ND	ND	ND
Dibromochloromethane	0.38	UG/L	ND	ND	ND	ND	ND
Chlorobenzene	0.4	UG/L	ND	ND	ND	ND	ND
Ethylbenzene	0.41	UG/L	ND	ND	ND	ND	ND
Bromoform	0.36	UG/L	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.38	UG/L	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0.47	UG/L	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.46	UG/L	ND	DNQ0.49	DNQ0.54	ND	ND
1,2-Dichlorobenzene	0.36	UG/L	ND	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	0.47	UG/L	0.00	0.00	0.00	0.00	0.00
Total Dichlorobenzenes	0.47	UG/L	0.00	0.00	0.00	0.00	0.00
Total Chloromethanes	0.4	UG/L	1.41	6.80	1.65	1.40	2.91
Purgeable Compounds	2.2	UG/L	1.41	6.80	1.65	1.40	2.91
Additional analytes							
Methyl tert-butyl ether	0.25	UG/L	NA*	NA*	NA*	ND	ND
meta,para xylenes	0.29	UG/L	NA*	NA*	NA*	ND	ND
ortho-xylene	0.32	UG/L	NA*	NA*	NA*	ND	ND
1,2,4-Trichlorobenzene	9.8	UG/L	ND	ND	ND	ND	ND

*= not analyzed by Environmental Monitoring Technical Services
**= analyzed by WECK Laboratories
^= Method blank value above the MDL; sample result not included in average calculations

ND= not detected
DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range

SOUTH BAY WATER RECLAMATION PLANT
SOURCE: EFFLUENT (SB_OUTFALL_01)
Priority Pollutants Purgeable Compounds, EPA Method 624 and 624.1

Annual 2019

Source:			EFFLUENT				
Date:			FEB	MAY	AUG	OCT**	
Analyte	Max MDL	Units					Average
Dichlorodifluoromethane	0.44	UG/L	NA*	NA*	NA*	ND	ND
Chloromethane	0.26	UG/L	ND	ND	ND	ND	ND
Vinyl chloride	0.33	UG/L	ND	ND	ND	ND	ND
Bromomethane	0.47	UG/L	ND	ND	ND	ND	ND
Chloroethane	0.24	UG/L	ND	ND	ND	ND	ND
Trichlorofluoromethane	0.53	UG/L	ND	ND	ND	ND	ND
Acrolein	2.2	UG/L	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.28	UG/L	ND	ND	ND	ND	ND
Methylene chloride	0.37	UG/L	DNQ0.9*	ND	ND	ND	ND
trans-1,2-dichloroethene	0.34	UG/L	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.39	UG/L	ND	ND	ND	ND	ND
Acrylonitrile	0.66	UG/L	ND	ND	ND	ND	ND
Chloroform	0.3	UG/L	15.1	DNQ0.62	DNQ0.58	ND	4.08
1,1,1-Trichloroethane	0.4	UG/L	ND	ND	ND	ND	ND
Carbon tetrachloride	0.4	UG/L	ND	ND	ND	ND	ND
Benzene	0.47	UG/L	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.54	UG/L	ND	ND	ND	ND	ND
Trichloroethene	0.43	UG/L	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.43	UG/L	ND	ND	ND	ND	ND
Bromodichloromethane	0.37	UG/L	24.7	ND	ND	ND	6.18
2-Chloroethylvinyl ether	0.28	UG/L	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	0.38	UG/L	ND	ND	ND	ND	ND
Toluene	0.37	UG/L	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	0.35	UG/L	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.32	UG/L	ND	ND	ND	ND	ND
Tetrachloroethene	0.4	UG/L	ND	ND	ND	ND	ND
Dibromochloromethane	0.38	UG/L	18.2	ND	ND	ND	4.55
Chlorobenzene	0.4	UG/L	ND	ND	ND	ND	ND
Ethylbenzene	0.41	UG/L	ND	ND	ND	ND	ND
Bromoform	0.36	UG/L	3.90	ND	ND	ND	0.98
1,1,2,2-Tetrachloroethane	0.38	UG/L	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0.47	UG/L	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.46	UG/L	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.36	UG/L	ND	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	0.47	UG/L	3.90	0.00	0.00	0.00	0.98
Total Dichlorobenzenes		UG/L	0.00	0.00	0.00	0.00	0.00
Total Chloromethanes	0.4	UG/L	15.1	0.00	0.00	0.00	4.08
Purgeable Compounds	2.2	UG/L	61.9	0.00	0.00	0.00	15.8
Additional analytes							
Methyl tert-butyl ether	0.25	UG/L	NA*	NA*	NA*	ND	ND
meta,para xylenes	0.29	UG/L	NA*	NA*	NA*	ND	ND
ortho-xylene	0.32	UG/L	NA*	NA*	NA*	ND	ND
1,2,4-Trichlorobenzene	9.8	UG/L	ND	ND	ND	ND	ND

*= not analyzed by Environmental Monitoring Technical Services
**= analyzed by WECK Laboratories

ND= not detected
DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range

SOUTH BAY WATER RECLAMATION PLANT
Radioactivity
Effluent to the Ocean (SB_OUTFALL_01)

Analyzed by: FGL Environmental Agricultural Analytical

Annual 2019

Month/ Year	Gross Alpha Radiation	Gross Beta Radiation
JANUARY -2019	7.6 ± 2.1	7.6 ± 1.3
FEBRUARY -2019	2.5 ± 1.4	9.7 ± 1.3
MARCH -2019	6.2 ± 1.6	8.7 ± 1.2
APRIL -2019	3.0 ± 1.4	8.7 ± 1.2
MAY -2019	4.7 ± 1.6	21.0 ± 1.7
JUNE -2019	9.0 ± 1.9	21.9 ± 2.1
JULY -2019	11.4 ± 1.8	6.6 ± 1.4
AUGUST -2019	5.3 ± 1.5	11.0 ± 1.3
SEPTEMBER-2019	8.4 ± 1.8	20.2 ± 2.0
OCTOBER -2019	9.3 ± 1.6	9.0 ± 1.5
NOVEMBER -2019	6.8 ± 1.1	9.3 ± 1.3
DECEMBER -2019	3.8 ± 1.1	17.4 ± 1.7
AVERAGE	6.5 ± 1.6	12.6 ± 1.5

Units in picocuries/liter (pCi/L)

SOUTH BAY WATER RECLAMATION PLANT
SAMPLE SOURCE: INFLUENT (SB_INF_02) AND EFFLUENT (SB_OUTFALL_01)

Tributyl Tin Analysis

Annual 2019

Source:			INFLUENT				
Date:			FEB	MAY	AUG	OCT	
Analyte	Max MDL	Units					Average
Dibutyltin	0.0323	UG/L	ND	ND	ND	ND	0.0
Monobutyltin	0.019	UG/L	ND	ND	ND	ND	0.0
Tributyltin	0.0184	UG/L	ND	ND	ND	ND	0.0

Source:			EFFLUENT				
Date:			FEB	MAY	AUG	OCT	
Analyte	Max MDL	Units					Average
Dibutyltin	0.0323	UG/L	ND	ND	ND	ND	0.0
Monobutyltin	0.019	UG/L	ND	ND	ND	ND	0.0
Tributyltin	0.0184	UG/L	ND	ND	ND	ND	0.0

ND=not detected